Handbook of Research on

Managerial Thinking in Global Business Economics

Hasan Dinçer and Serhat Yüksel

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Handbook of Research on Managerial Thinking in Global Business Economics

Hasan Dinçer
Istanbul Medipol University, Turkey

Serhat Yüksel
Istanbul Medipol University, Turkey

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Innovation capacity is one of the essential elements that ensure sustainability of the organizations. Organizations need to be creative and innovative so as to put products and services to market by forecasting customer needs to get competitive advantage in a rapidly changing business environment. Businesses that are more pioneering in innovation will be more successful if they can respond to changing environmental conditions and develop new capabilities that will allow them to deliver better performance. Innovation helps businesses to reduce costs, improve performance, and create new products and services to increase their competitiveness. Scholars contend that the development and implementation of human resource management is critical to benefit such essential employee contributions.

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Investigating contemporary issues in specific scientific areas is a continuing concern within understanding underlying conditions and decision making. In the last few decades, human beings have witnessed intense technological developments. The main challenge faced by marketing scholars and practitioners is how developments and changes would affect consumer and brands as an integral relationship in different contexts. This chapter examines contemporary issues affecting managerial and innovative thinking in marketing environment. In this study, the concepts of technology, social network/social media, consumer, and brand are central to contemporary issues and challenges in marketing environment. In a descriptive approach, sub-concepts of main concepts are discussed, Then selected studies and questions about future researches are stated. This study offers an integrative approach and important insights into marketing issues and marketing management.

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As the marketing world tries to reach mobile users, a wearable technology market has emerged. This market would lead the digital marketing world to major innovation investments and entail companies to develop and improve marketing strategies in the area. The great breakthrough and development in the wearable technology industry allows marketing professionals to conduct more research on the subject. This chapter explores users' attitudes and purchase intention towards one of the most popular wearable devices, smartwatches. Two hundred surveys were taken into analyses which were collected between the dates of 1st and 2nd of June, 2018. Regression analysis, correlations analysis, t-test were conducted to test the hypotheses. While some independent variables such as hedonic values found to be the affecting the purchase intention; variables such as aesthetic appeal is found to have no influence on it.

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The purpose of this chapter is to understand whether economic growth and inflation rate have an effect on the development of Islamic stock market. Within this context, quarterly data of 13 European countries for the periods between 2002:2 and 2016:3 are analyzed with Dumitrescu Hurlin panel causality test. It is concluded that inflation rate and economic growth have a significant effect on the development of Islamic stock market. Because economic growth affects private investment in the country, it has an important impact on the development of Islamic stock exchange. Additionally, inflation rate is accepted as the main cause of Islamic stock market development because it increases uncertainty in the market. Hence, it can be said that countries should focus on the policies to decrease high inflation rates and increase economic growth. With the help of these kind of actions, it will be possible to improve Islamic stock market in the country. Because companies, which are included in Islamic stock market, have to obey ethical rules, it will improve the performance of the economies as well.

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Highly competitive business environments make innovation a key element for survival. Though there are many companies that have been market leaders, they failed. The main reason behind the failure is lack of innovation. This is why companies have to find new discoveries and strategies to survive. Even though innovation is generally defined as a creation of idea, it is more than an idea. It is a process that includes a series of steps that begin with imagination and result in the creation of something. Innovation provides solutions for requirements in a unique way. Before the imagination steps, companies have to understand deeply customers' needs or desires to define requirements of customers. In this chapter, the customer-centric innovation process explained in seven stages.

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Innovation in smart contract systems helps to create decentralized payment systems. These developing concepts will be a new perspective to solve transparency issues. Smart contracts can prove all transactions and flow of funds and money between parties. Business deals and financial payment methods are expected to be a hybrid approach in both traditional and smart contracts in the future. Empirical analysis of smart agreements among their emerged platforms, different applications, and design views will enlighten future needs of trade payment methods. This chapter investigates the concept of smart contracts and critical issues for developing on financial payments environment. This research also aims to examine possible advantages of the application of smart contracts as innovation, legal, and technical aspects of the emerging business environment. The analysis will compare new mechanisms securing a block-chain applied to financial payments. This chapter also reviews the mechanisms of smart contracts and block-chain and focus on predicted future areas on the financial system.

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Financial innovation offers cheaper and available services to financial system and it increases quality of service and products in a long run. The functions of financial innovation are decrease in the cost of payments and increase in the speed of determination of fraud, mechanism for the pooling of funds, management of uncertainty and controlling of risk, manages agency costs, and enhancement of liquidity. Technology contributes to the design and pricing of new instruments and facilitates the identification, measurement, and monitoring of risks in portfolios containing complex instruments. Innovation research has shown that the increase in countries' innovation performance plays a key role in economic and social development, prosperity, and development. Financial innovation is the most important driving force for the transition to the information economy. Globalization and global competition require innovation. Hence, the future is mobile and should be innovative.

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The regulations that emerged from the global financial crisis of 2008 and fines that were imposed afterwards triggered a wave of changes in how risk is managed. Innovative methods for risk management became more important as the standards for compliance and management tightened. Institutions also invested in strengthening their risk cultures and involved their boards more closely in key risk decisions. This chapter discusses major risk factors for financial institutions and the innovative solutions that they introduced to manage risk better. Innovative solutions in risk management are not limited to advances in technology such as machine learning and data mining, but also include new regulations, better monitoring, and stricter auditing. Financial institutions improved boards' oversight of risk, created new committees for risk assessment and monitoring. and developed new methodologies for risk management.

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Achieving her targets regardless of whatever sector a business has been operating depends on the way she converts various organizational outcomes into favorableness. Organizational outcomes that may affect the performance of businesses include job satisfaction, organizational commitment, corporate reputation, strategic orientation, organizational creativity, and other points. In the literature, it is seen that the management style is one of the variables that are effective for favorable or adverse organizational outcomes. There are different classifications related to management style. According to many researches, it can be said that the most commonly used classification of management styles includes democratic, participatory, laissez-faire, and autocratic. When the results of researches have been examined, it is regarded that making a generalization related to which management style can always be applied as the most appropriate one is tough.

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Mustafa Atilla Arıcıoğlu, Necmettin Erbakan University, Turkey
Büşra Yiğitol, Konya Food and Agriculture University, Turkey

In this chapter, three fundamental paradigm changes related to strategic management are discussed and analyzed. Firstly, change of the long-term concept is emphasized. Reasons such as the emergence of global enterprises, increasing number of tools using on prediction of future, as well as the increasing complexity in business world shows that time-based mentality of planning that used by public strategy is no longer valid. The second discussion is the strategic consciousness that is not included in the strategic management process and is ignored in most of the strategy literature. The level of strategic consciousness refers to the ability of organizations to be aware of environmental changes. Therefore, strategic consciousness should be included in the entire strategic management process. The third discussion is that strategic management is not valid for SMEs. Because of characteristics, it is not possible for SMEs to have a strategic point of view.

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Davide Tammam, LUISS Guido Carli University, Italy
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Francesca Vicentini, Link Campus University, Italy
Elvira Anna Graziano, Link Campus University, Italy

Technological change is creating strategic and managerial challenges. This holds true in the case of disruptive innovations, which are reshaping industry boundaries, exposing organizations to new competitive logics and threats. Companies face the need of new strategies and innovative thinking capabilities. This chapter provides a systematic literature review on the role of disruptions by identifying the changes they have brought in the markets and the new challenges for managers, especially within the domain of strategic management, since disruptive innovations may modify strategic and innovative thinking. The final analysis has been conducted on 19 journal articles published between 1995 and 2018. The results show the strong interplay existing between strategy and innovation management, but they also highlight

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the relationship between innovative thinking, learning, human capital, and capabilities' acquisition. Furthermore, they encourage further research in the light of the multiple trajectories offered by innovation and disruptions for diverse companies and industries.

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Neoliberalism means "new liberalism." It could be dated back to 18th century, but it is a term that belongs today. Since 1990, neoliberal rules gave many harmful effects, especially to developing countries, and those harmful effects have proceeded for labor class. As capitalism stands on its own feet, it can find solutions to regain profits. However, the concern may well be gaining too much profit gives harmful effects on a wide range of social classes. Neoliberalism is accepted as the tool of these effects by the majority of the economists. In this chapter, the authors scrutinize the consequences of neoliberalism by the mediation of two great philosophers who criticized capitalism in different ideas. Karl Polanyi's and Joseph A. Schumpeter's different opinions about capitalism will be scrutinized in order to understand the connection between capitalism and neoliberalism. So, in this study, starting with its name, neoliberalism's implementations will be scrutinized by two great philosophers.

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Ramesh Chandra Das, Katwa College, India
Utpal Das, Katwa College, India

Under the backdrop of the liberalization and globalization policies undertaken by the Indian government and the outbreak of the global financial crisis, the present chapter tries to study the trends, fluctuations, and ranking of the credit-deposit ratio of the Indian states for the period 1972-2015 comprising pre-globalization to post-financial crisis phase. Applying descriptive statistics, product moment and rank correlation coefficients, and student's "t" test and "F" tests, the results show that there are significant increases in the credit-deposit ratios of most of the states during the phase of financial as well as post-financial crisis phase compared to pre-globalization and post-globalization periods, but there were significant fluctuations in credit-deposit ratio in the financial crisis and post-financial crisis phases. Further, the rank correlation results show that the states maintained almost similar ranks in their credit-deposit ratios for the phases of pre-globalization, post-globalization, pre-financial crisis, and post-financial crisis. The study, thus, suggests that the Indian banking sector has not been affected adversely.

Chapter 14
Innovating Through Reflective Learning in Mindful Organizations: Effects of Authentic Leadership.. 246
Elif Baykal, Istanbul Medipol University, Turkey

In the 21st century, being affected by the demanding business atmosphere and fierce competition among players, contemporary organizations have changed their priorities. The rivalry among ambitious organizations created knowledge-based economies that are possible through effective learning and high

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levels of organizational awareness. In this chapter, it is suggested that these requirements for effective learning and high awareness in companies address the need for mindful individuals and mindful organizations. And mindfulness in organizations are good for establishing meaningful ways to promote organizational learning and creates the baseline for more innovative work atmospheres. Furthermore, authentic leadership, most congruent leadership style for positive work atmospheres which is charachterized by authenticity, transparency, and high levels of awareness, has been presented as a suitable leadership style for mindful and innovative organizations. And moreover, it is proposed that under authentic leadership, mindful organizations will be succesful in benefting from reflective learning which will contribute to higher levels of innovativeness.

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The Effects of Technology on Bank Performance in Advanced and Emerging Economies: An Empirical Analysis 263
Necla Tunay, Marmara University, Turkey
Serhat Yüksel, Istanbul Medipol University, Turkey
K. Batu Tunay, Marmara University, Turkey

Electronic banking is a very popular aspect almost all over the world especially in the last few years. Banks make investment in this area in order to attract the attention of the customers. Therefore, it can be possible to survive in such a competitive environment. In the literature, it is also discussed that making investment into the technological aspects has an important contribution to the financial performance of the banks since it increases efficiency in banking operation. Similarly, in this chapter, the effects of electronic banking technologies on bank profitability and costs are investigated. The analyzes are performed with aggregated data from 23 developed and emerging economies covering the 2005-2015 period. The relationship between the electronic bank services and various performance and cost criteria such as ROE, cost to total income ratio, non-interest income, and overhead expenses to total assets ratio has been analyzed. The findings show that the increase in the use of electronic banking technologies has a positive impact on profitability and a negative impact on costs. Banks' investments in technological innovations improve both their productivity, product and service quality, and profitability performance. While considering the issues emphasized in this study, it can be recommended that banks should increase their investments for the technological improvement in order to have higher financial performance.

Chapter 16
Strategic Decision Making and Risk Management in the EU 281
Imre Sabahat Ersoy, Marmara University, Turkey

Innovative managerial thinking in global business economics necessitates the follow-up of the developments in the international regulatory framework of risk management for strategic decision making. The risk management framework which evolved from Basel I to Basel III (or with the December 2017 finalizations, the way the market calls it "Basel IV") in the world economies and Capital Requirements Directive (CRD) V and Capital Requirements Regulation (CRR) II in the European Union have been game changers. Global managers need to take strategic decisions in this new international risk management setting in order to succeed in the competitive global business environment. For effective capital management, risk function and finance function should come together. For effective implementation, this mix should be supported by establishing partnership among the risk, finance, and strategy groups.

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Gender Diversity and Independency: Threat or Opportunity in Managing Innovative Property? 298
Derya Fındık, Ankara Yildirim Beyazit University, Turkey
Murat Ocak, Trakya University, Turkey

This chapter focuses on the impact of corporate governance indicators on intangible investment (innovative property) and aims to understand the linkages among gender diversity, independency, and intangibles. The literature on corporate governance has mainly focused on the relation between corporate governance indicators and firm financial performance. However, the mediating factor of intangibles receives less attention from scholars. This study uses two data sources at the firm level in Turkey. The first one is the "firm's annual reports" and the second one is the "KAP (Public Disclosure Platform of Turkey) database." This research covers 215 firms and 9 years from 2005 to 2013; a panel data methodology is used. The research suggests that firms with a certain level of board independency and gender diversity give emphasis to the intangibles.

Chapter 18
How Social Media is Transforming Marketing? 318
İbrahim Kırcova, Yıldız Technical University, Turkey
Ebru Enginkaya, Yıldız Technical University, Turkey

Integrating companies to digital channels is a necessity to build and maintain a competitive advantage in today's market conditions. In the business environment, companies realize that sustainable competitive advantage can be gained only by understanding customers' needs and expectations, developing activities that meet their demands, ease their work, and engage them to the brand to create difference and value. Success in marketing will be driven by an effective communication and consumer experience. Marketing and brand managers are in the process of determining how social media tools impact them and what their digital transformation approach and communication strategy should be. This chapter examines the importance of social media for companies and benefits of social media on the performance of marketing processes that enable better communication, planning, and execution from consumer engagement to consumer purchase.

Chapter 19
Marketing Management in Digital Marketing and Consumer Behaviour Context 336
Fatih Pinarbasi, Istanbul Medipol University, Turkey

Managerial thinking in marketing management requires holistic perspective for understanding and interpreting issues and trends in marketing environment. Technology plays a key role in business related issues and the effects of it can be seen in digital marketing concept. On the other hand, consumer behavior is always popular because of the nature of concept. In today's world consumer-brand relationship can be consumer-driven or brand-driven. So, this combination creates a dual structure which can help for a holistic perspective. The aim of this chapter is examining marketing management in two perspectives: digital marketing and consumer behavior. Literature review is used in this study to examine current literature in three different contexts. These contexts refer to specific areas in marketing management and they address two perspectives used in this study. All contexts have descriptive information and selected studies. This study highlights main topics in the contexts and provides a holistic perspective for marketing management.

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Chapter 20
Strategic and Innovative Actions of the Government During the Financial Crisis: A Historical Analysis Between 1929 and 2008 352
Seçil Şenel, Istanbul Medipol University, Turkey

Financial crises cause significant economic and social problems for the countries. Many companies stop their operations and a lot of people lose their jobs. Especially after the globalization, there is an increase in the number of financial crises. Because of this aspect, governments try to implement necessary actions to prevent the crisis. In this scope, government intervention to the market during the crisis period is a much-debated concept. The aim of this chapter is to identify the success of government intervention in the market in crisis period. For this purpose, three different financial crises are analyzed, which are 1929 Economic Depression, 2001 Turkish Economic Crisis, and 2008 Global Mortgage Crisis. As a result, it is identified that when government intervene into the market in crisis period, the countries can much easily overcome the crisis. Therefore, it is recommended that strategic and innovative actions should be taken by the government in case of economic crisis, such as increasing liquidity level and implementing new regulations.

Chapter 21
Thriving at Work as a Psychological Mechanism to Enhance Employee Capability of Innovative Voice 371
Ömer Erdem Koçak, Istanbul Medipol University, Turkey

The aim of this chapter is to shed light on the mechanism under the relationship between innovative voice and its predictors of person-job fit and supervisor support. Thriving at work, a personal experience, is proposed as a mediator between predictors and outcome variable. To test the hypothesis, data was collected from 467 white-collar employees from several industries employing both convenience and snowball sampling methods. According to the results of structural equation modelling and bootstrapping method for mediation tests, the findings are as follows: Thriving at work fully mediates the relationship between demand-ability fit, but it only partially mediates the effect of supervisor support. Further, multigroup analysis showed that both pathways were mediated by thriving at work for both gender groups. This study showed that thriving at work fuels employees' innovativeness which is nurtured by relationship quality, task focus, exploration, and other key resources.

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Chapter 22
Three Horsemen of the Markets: On the Perspective of Schumpeterian Revolution in the Nexus of Finance-Innovation-Competition 393
Gönül Yüce Akıncı, Ordu University, Turkey

The purpose of this chapter is to examine the impact of technologic improvement and financial development on competitive power in the 28 member countries of the European Union using panel geographically weighted regression analysis for the period of 2004-2016. The findings of the analysis, which show that increasing technological development accelerates the competitive power, support the Schumpeterian hypothesis, revealing that the impact of technology on competitiveness could accelerate with the contribution of the financial sector. In addition, findings reflecting the fact that the foreign trade which has been strengthened via technical development increases the competitive power show that the level of

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globalization has a contribution to this process, also. It has been observed that securing the property rights and applying the effective patent regimes leads to competitive advantage, and the economic integration process of the European continent has strengthened the competitive force.

Chapter 23
Three Economic Depressions of the Turkish Economy: A Structural Perspective for Development Strategy 407
Cengizhan Yıldırım, Bolu Abant İzzet Baysal University, Turkey

The aim of this chapter is to analyze the three depressions of Turkish economy, which are the period of Second World War, the second half of the 1970s, and between 1994 and 2001. In these depression periods, the supply-demand balance completely deteriorated, and the economy completely collapsed. The economic paradigm changed after each depression, but economic problems have never changed. As very different economical models, étatism, planning import substitution industrialization, neoliberal economy policies have been tested for Turkish economy, but none of them has been successful. The lack of knowledge of facts of economics is the main cause of depressions. For innovative strategy, the Turkish economy needs more free market and deregulation.

Chapter 24
The Role of Islamic Financial Product Innovation in Reduction of Financial Exclusion in Ethiopia 426
Suadiq Mehammed Hailu, Cukurova University, Turkey
Ayhan Kapusuzoglu, Ankara Yildirim Beyazit University, Turkey
Nildag Basak Ceylan, Ankara Yildirim Beyazit University, Turkey

The aim of the chapter is to explain the strategic role of Islamic finance, which can be considered as financial product innovation, in combating financial exclusion in Ethiopia. It intends to assess the extent and the nature of religious-driven financial exclusion of Ethiopian Muslims and the level of their participation in the existing interest free window banking system introduced to the sector recently. In order to collect data for the research, mixed approaches such as questionnaires and semi-structured interviews are used. The questionnaire was distributed to 321 respondents in Addis Ababa in 2017 while the semi-structured interview was conducted with selected high-ranking bank officers. At the end of the analyses there are findings which show the extent of financial exclusion of Ethiopian Muslims due to the absence of alternative financial systems.

Chapter 25
The Role and Importance of the Strategic Plans as an Innovative Tool in Determining the Direction of Companies From the Financial Success Perspectives 447
Mustafa Tevfik Kartal, Borsa İstanbul, Turkey

Companies have a variety of aims. Among them, the most important one is to survive. However, survival is not an easy subject in the global environment. Even surviving becomes harder while competition increases. So, companies have to deal with both globalization and competition at the same time. Although it is possible to mention about lots of tools, one of the most important innovative management tools is strategic planning in terms of the financial success perspectives. The strategic plan (SP) is a tool that can be used to shape their future and to survive by companies. It is concluded that SPs have important benefits. Firstly, SPs make the contribution to the survival. Secondly, SPs are helpful to plan future. Thirdly, SPs are used as a guide. Fourthly, SPs trigger good management practices and innovation culture because of requiring transformation processes. Fifthly, due to triggering internal transformation works,

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SPs make the contribution to gain the comparative competitive advantage. Sixthly, by implementing SPs well, it is inevitable to reach good financial results.

Chapter 26
The Relationship Between Financial Development, Innovation and Economic Growth.................... 462
Asuman Koc Yurtkur, Bulent Ecevit University, Turkey

Along with the globalization process, the relationship between the existence of an advanced financial system, financial development and economic growth has become one of the most debated issues. The financial system, development and development indicators, which play an important role in the overall success levels of the economy, are among the topics to be considered due to this importance. In this study, financial development, economic growth, and theoretical approaches are discussed. Moreover, the fact that the subject is empirically presenting evidence requires examination of this situation with studies in the literature. The presence of the findings obtained empirically, in particular Turkey's economy has made it necessary to include a large empirical literature. The generally accepted financial development indicators, which provide comparability in terms of countries, are examined in terms of financial markets and financial institutions in terms of depth, access, stability and efficiency during the period 2005-2015.

Chapter 27
Globalization and Time-Varying Market Efficiency: An Innovative Approach................................. 480
Melik Kamışlı, Bilecik Seyh Edebali University, Turkey
Serap Kamışlı, Bilecik Seyh Edebali University, Turkey
Fatih Temizel, Anadolu University, Turkey

The main purpose of this study is to determine time-varying weak form efficiency of 18 Borsa İstanbul sub-sector indices. In line with this purpose weak form efficiency is tested with innovative technique alongside traditional methods. The study indicated that bank, real estate invest trusts, holding & investments, telecommunication, wood, paper & printing, insurance, tourism and transportation indices are not linear. The weak form efficiency of aforementioned indices is analyzed with a rolling KSS unit root test developed by Yılancı. It is concluded depending on the applied tests that weak form efficiency of all of the nonlinear sub-sector indices has a time-varying structure. Results also showed that global scale events affect weak form efficiency of the indices in different durations. Findings gained from the study can be used by investors in strategic portfolio management decisions and by policy makers as well.

Chapter 28
Strategic Alliances: A Conceptual Model of Health Tourism 500
Nilufer Vatansever Toylan, Kirklareli University, Turkey

This chapter is aimed at examining the concept of alliances, which has been used as a strategy in the service industry, with a theoretical perspective and how it can be applied to the tourism industry. Specifically, alliances in health tourism are examined by an integrated model proposed for Turkey. Therefore, a literature review has been presented in this chapter. From this, a model created for strategic alliances in the health tourism industry is adapted from the literature. From explaining strategic collaborations in a general context, strategic alliances in tourism industry, examples about Health Tourism Alliances from the world and from Turkey specifically, a model is proposed for Health Tourism Alliances. Lastly, some theoretical and practical implications and suggestions for future studies are presented.

Chapter 29

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ESG and Financial Performance: Impact of Environmental, Social, and Governance Issues on Corporate Performance 520
Aslı Aybars, Marmara University, Turkey
Levent Ataünal, Freelance Academic, Turkey
Ali Osman Gürbüz, Istanbul Commerce University, Turkey

Non-financial information such as environmental, social, governance (ESG) issues is becoming as much important as financial data. This study investigated the empirical relationship between Thomson Reuters Environmental Social Governance (ESG) Combined Score and performance of S&P 500 firms with eleven years of data from between 2006 and 2016. The study confirmed unidirectional positive and significant relation between ESG Combined Score and ROA, suggesting that improvements in ESG score have positive impact on operating performance of the firm. Although simultaneous equation estimations by means of instrumental variables (IV) employing two-stage least squares (2SLS) and three-stage least squares (3SLS) confirmed the significant positive relation between ESG Combined Score and operational profitability (ROA); contrarily, Tobin's Q seemed to affect ESG score rather than the ESG score inducing Tobin's Q. Higher Tobin's Q seems to lead to a lower ESG score. In other words, firms with higher growth potential as denoted by a higher Tobin's Q, are found to be less sensitive to ESG issues.

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Foreword

I have been dealing with management, technology and decision making for more than 30 years. I may have read tons of books and articles about management. Many of them were highly informative and enlightening. When I came across this book, I said it is positively different from any other book that I have read so far. It is not only because this is an editorial book whose chapter authors are all experts in management and strategic decision making, but also this book is edited and organized neatly. Let me tell you why:

Since the beginning of the industrial age, management of production and marketing has always been a hot issue in business. Layout of facilities, production lines and amounts, service quality and customer satisfaction have always been significant challenges for managers. As years pass, shrinking and expanding markets are both to be taken into account for making operational, tactical, and strategical decisions. Leaders, managers, directors and businessmen have employed various techniques and tools to find solutions to the problems, which are emerging on different grounds including new technologies and new type of customers. Multiple Criteria Decision Analysis, Paired Comparison Analysis, Analytic Hierarchy Process (AHP), Decision Making Tree, Simple Decision Tree, Pro/Con, Influence Diagrams, Game Theory, Multi-Voting, Cost/Benefit Analysis, Linear Programming, Conjoint Analysis, Affinity Diagrams, Trial and Error, Business Intelligence, Data Mining, and Heuristic Methods are most commonly used techniques for problem solving. On the other hand, Marginal Analysis, Break-even Analysis and Financial Analysis are the other approaches to problem solving and decision making.

There are loads of books, articles and research papers about those techniques and their applications for countless cases. However, it is not easy to find a compact resource to read not only the well-known decision-making models and their applications, but also new approaches to problem solving aligning with other conventional methods. In this sense, this book is another chapter itself to fill a gap in the related literature.

The book covers various challenges and their solutions in decision-making from a modern perspective. Today, regular decision-making tools are useless without taking employees, namely the human factor into account. That means doing math is not important if it is done without considering human factor. After you read this book you will probably better understand how to manage human, gender diversity and ethnicity under the light of an effective leadership for a better decision making. In the book, some chapters are intentionally dedicated to financial crisis and risk management. This is another aspect that makes the book valuable. Indeed, we are living in an environment that a financial crisis or risks are constantly looming. This is true not only for companies but also for governments. So, let’s accept that any manager should smell the crises and risks still lingering in the air, no matter it has happened far away from his/her home country or just been successfully parried by him/her. In the book, you will find

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ideas and different perspectives to risk management, financial crisis management and strategic decision making under emergency conditions. These solutions include scientific methods like data mining and machine learning. These are the new frontiers in today's business environment. The inexorable increase in data available for managers makes them incline to use artificial intelligence (AI) for problem solving. An application area of AI is data mining and machine learning. In this novel book, you will find AI supported decision making models as strategic decision-making tools.

The digital age or the internet age whatever you name it, we are in an epoch that things are changing faster than ever. New products, services and market places are appearing and disappearing. Just until recently, web portals were the very new market places, likewise software, internet banking were new products and services. Today they have already been obsolete. Now we have social media as a huge market place, mobile applications as banks, schools and health services. Hence, innovation is a hot topic for companies and it surely has to be. In order to seize innovative opportunities to optimize business they need to pay special attention to innovation. A modern manager has to think about all these and forecast prospective opportunities before he or she makes strategic decisions. This book has a special chapter for innovation, technology and decision making that presents concrete examples of management styles.

I extend my appreciation to the authors and editors who provided their expertise and exemplary efforts in preparing this valuable and indispensable resource. I have learnt many things when reading the chapters. I hope readers will benefit from this book as much as I have.

Gökhan Silahtaroğlu
Istanbul Medipol Universitesi, Turkey

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Preface

The main purpose of this book is to identify the importance of strategic decision making in competitive environment by analyzing the impacts of innovative managerial thinking on the global financial economics. Therefore, it can be said that this project makes a significant contribution to the literature by focusing on an important topic for the companies.

High competition is an aspect which should be overcome by the companies in order to survive in the market. For this purpose, strategic decision making plays a key role. In other words, managers should focus on innovative managerial thinking to be successful in this competitive environment. This project aims to analyze the details of these emphasized topics to be beneficial for the companies.

Target Audience and potential users of this book are defined below.

- Researchers
- Academicians
- Policy Makers
- Government Officials
- Upright Students in the concerned fields
- Members of Chambers of Commerce and Industry
- Top managers of the companies

This book consists of four different sections. In Section 1, there are seven different chapters. In Chapter 1, innovative work behavior of the employees are evaluated. The main purpose of this chapter is to provide recommendations in order to have sustainability in the organizations. While considering the important points underlined in this chapter, it can be much easier for the companies to have more effective human resource management.

Chapter 2 assesses the contemporary issues affecting managerial and innovative thinking in marketing environment. Within this framework, he concepts of technology, social network/social media, consumer and brand are taken into the consideration. In this study, selected studies and questions about future researches are stated by focusing on the main concepts of marketing management.

Chapter 3 examines users' attitudes and purchase intention towards one of the most popular wearable devices, smarthwatches. For this purpose, a survey is conducted with 200 different people. The data was collected between the dates of 1st and -2nd of June, 2018. In addition to them, regression analysis was performed in order to reach this objective. As a result, it is concluded that hedonic values have a significant effect on the purchase intention.

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Chapter 4 focuses on another important topic in innovative managerial thinking in global economies which is Islamic stock exchange. The main purpose of this chapter is to understand whether economic growth and inflation rate have an effect on the development of Islamic stock market. Within this context, quarterly data of 13 European countries for the periods between 2002:2 and 2016:3 are analyzed. Moreover, for this purpose, Dumitrescu Hurlin panel causality analysis is taken into the consideration.

Chapter 5 focuses on the customer centric innovation in the banking sector. For this purpose, seven different stages on customer centric innovation are identified. Therefore, it is aimed to present some recommendations for the banks to generate innovative strategies so that they can increase their competitive powers. Owing to this aspect, it can be possible for them to survive in a competitive environment.

Chapter 6 underlines the importance of the smart contracts as an innovative way of financial payments. Because financial payment process is a very significant aspect for the organizations, there is a need for a new and innovative product to make this process much easier. Within this scope, this research also aims to examine possible advantages of the application of smart contracts as innovation, legal and technical aspects of the emerging business environment.

Chapter 7 aims to analyze the financial innovation concept by focusing on theories, models and future aspects. Financial innovation offers cheaper and available services to financial system and it increases quality of service and products in a long run. Thus, it is believed that financial innovation has many advantages for the organization by decreasing cost and increasing the transaction speed. Additionally, it is also accepted that this kind of innovations has an important influence on economic and social development.

Section 2 of this book has also seven different chapters. Chapter 8 explains innovative methods in financial risk management. This chapter discusses major risk factors for financial institutions and the innovative solutions that they introduced to manage risk better. Within this framework, many different recommendations are presented for the organizations to increase efficiency. Advances in technology such as machine learning and data mining, and also new regulations like better monitoring and stricter auditing are given as examples for this issue.

Chapter 9 identifies some management styles as a strategic tool for the development of the organizations. In this context, job satisfaction, organizational commitment, corporate reputation, strategic orientation, organizational creativity and other points are determined. Furthermore, different classifications related to management style are also considered for this purpose. It is underlined that the most commonly used classification of management styles includes democratic, participatory, laissez-faire and autocratic.

In Chapter 10, three fundamental paradigm changes related to strategic management are discussed and analyzed. In the first aspect, change of the long-term concept is identified. Secondly, the subject of strategic consciousness is determined for this scope. In addition to them, the third discussion is that strategic management is not valid for SMEs. Moreover, Chapter 11 focuses on the subject of disruptive innovation. For this purpose, a systematic literature review on the role of disruptions is conducted. Within this framework, 19 journal articles, published between 1995 and 2018, are taken into the consideration.

Chapter 12 aims to scrutinize the consequences of neoliberalism by the mediation of two great philosophers who criticized capitalism in different ideas. For this purpose, Karl Polanyi's and Joseph A. Schumpeter's different opinions about capitalism are considered. Chapter 13 tries to study the trends, fluctuations and ranking of the credit-deposit ratio of the Indian states for the period 1972-2015 comprising pre-globalization to post financial crisis phase. Moreover, Chapter 14 examines the role of authentic leadership on reflective learning in mindful organizations.

Section 3 includes seven different chapters with respect to the innovative managerial thinking in global business and economic environment. In Chapter 15, the effects of electronic banking technologies on

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bank profitability and costs are evaluated. Within this context, 23 developed and emerging economies are examined in this study for the periods between 2005 and 2015. In this circumstance, the relationship between the electronic bank services and various performance and cost criteria such as ROE, cost to total income ratio, non-interest income and overhead expenses to total assets ratio has been analyzed.

Chapter 16 evaluates the concepts of strategic decision making and risk management in European Union. For this scope, the regulations emphasized in Basel I to Basel IV are taken into the consideration. Chapter 17 focuses on the concept of gender diversity and independency in order to have sustainable improvement in the organizations. This research covers 215 firms in Turkey and annual data between 2005 and 2013 is analyzed with the help of panel regression methodology.

Chapter 18 gives importance to the social media marketing as a new and innovative subject in the marketing management. Within this framework, the importance of social media for companies and benefits of social media on the performance of marketing processes that enable better communication, planning, and execution from consumer engagement to consumer purchase are taken into the consideration.

Chapter 19 evaluates the marketing management in two perspectives; digital marketing and consumer behavior. In order to reach this objective, a literature review is conducted. Within this scope, the literature is classified in three different contexts. These contexts refer to specific areas in marketing management and they address two perspectives used in this study.

Chapter 20 focuses on the innovative and strategic actions of the government during financial crisis. For this purpose, 3 different financial crises are analyzed which are 1929 Economic Depression, 2001 Turkish Economic Crisis and 2008 Global Mortgage Crisis. By making this analysis, it is aimed to understand whether government should intervene into the market in crisis period or not.

Chapter 21 aims to shed light on the mechanism under the relationship between innovative voice and its predictors of person-job fit and supervisor support. In order to achieve this purpose, data was collected from 467 white-collar employees from several industries employing both convenience and snowball sampling methods. In this study, thriving at work, a personal experience, is proposed as a mediator between predictors and outcome variable.

Section 4 contains eight different chapters regarding innovative managerial thinking. In Chapter 22, it is aimed to examine the impact of technologic improvement and financial development on competitive power in the 28 member countries of the European Union using panel Geographically Weighted Regression Analysis for the period of 2004-2016. As a result, it can be possible to see the role of financial innovation on the competition.

Chapter 23 analyzes three economic depressions in Turkish economy. The main aim of this study is to develop an effective strategy in such an environment. Hence, the main indicators of these depressions are tries to identify so as to reach this objective. Chapter 24 aims to analyze the role of Islamic financial product innovation in reduction of financial exclusion in Ethiopia. For this purpose, a survey analysis is conducted with 321 respondents in Addis Ababa in 2017.

Chapter 25 tries to evaluate the role and importance of the strategic plans as an innovative tool in determining the direction of companies from the financial success perspectives. Hence, the ways to develop a strategic plan are explained in a detail aspect. In addition to this situation, the advantages of the strategic plan are also underlined in different views. For this scope, six different concepts are taken into the consideration.

Chapter 26 makes an analysis to identify the relationship between financial development, innovation and economic growth. Within this scope, annual data of Turkey for the years from 2005 to 2015 is evaluated. As a result of this analysis, it can be obvious whether innovation has an impact on the financial

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development and economic improvement. By considering these results, necessary recommendations are presented.

Chapter 27 aims to determine time-varying weak form efficiency of 18 İstanbul Stock Exchange sub-sector indices. For this purpose, some companies in different industries are analyzed. Chapter 28 tries to examine the concept of alliance, which has used much as a strategy in the service industry recently, with a theoretical perspective and how it is applied in the tourism industry. Finally, Chapter 29 investigates the empirical relationship between Thomson Reuters® Environmental Social Governance (ESG) Combined Score and performance of S&P 500 firms with eleven years of data between 2006 and 2016.

Most of the studies in the literature emphasizes the importance of the concepts of strategic management, decision making process, innovative managerial thinking separately. The main difference and advantage of our study is that it will focus on these defined subjects together. In other words, our study will analyze the impacts of these topics to the performance of the companies. Because of this situation, it is believed that this study makes a contribution to the literature.

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The editors would like to acknowledge the help of all the people involved in this project and, more specifically, to the authors and reviewers that took part in the review process. Without their support, this book would not have become a reality.

First, the editors would like to thank each one of the authors for their contributions. Our sincere gratitude goes to the chapter's authors who contributed their time and expertise to this book.

Second, the editors wish to acknowledge the valuable contributions of the reviewers regarding the improvement of quality, coherence, and content presentation of chapters. Most of the authors also served as referees; we highly appreciate their double task.

Hasan Dinçer
Istanbul Medipol University, Turkey

Serhat Yüksel
Istanbul Medipol University, Turkey

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Section 1

Section 1

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Chapter 1
Enhancing Employee Innovative Work Behavior Through Human Resource Management Practices

Nurten Polat Dede
Istanbul Medipol University, Turkey

ABSTRACT

Innovation capacity is one of the essential elements that ensure sustainability of the organizations. Organizations need to be creative and innovative so as to put products and services to market by forecasting customer needs to get competitive advantage in a rapidly changing business environment. Businesses that are more pioneering in innovation will be more successful if they can respond to changing environmental conditions and develop new capabilities that will allow them to deliver better performance. Innovation helps businesses to reduce costs, improve performance, and create new products and services to increase their competitiveness. Scholars contend that the development and implementation of human resource management is critical to benefit such essential employee contributions.

INTRODUCTION

The shifts brought by the trends such as globalization, technological developments and knowledge based economy, and the pace of these shifts expose today's businesses to ever-increasing pressure to be more innovative (Chan Kim & Mauborgne, 2005). The wishes and expectations of consumers are constantly changing and becoming more complex. Products known as state-of-the-art are either suddenly abandoned by technology developed by agile entrepreneurs or live a very short life (Miller & Keoleian 2015). In order to be able to adapt to these conditions, more and more companies have to fight harder and it is vital for businesses to be able to respond to expectations on time and in an complete manner. (Dess & Picken, 2000).

After 1990s, as the role of the HR managers in the organization expanded, HR managers were included in the enterprise strategic planning processes. The most important reason for this development is the fact that HR managers made significant contributions to the improvement of the organization and

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to create organizational competences and willingness and determination of HR mangers in undertaking strategical roles and creating their own plans and assessments as strategical planners. (Dede, 2018)

Human resources management departments are not responsible for innovations such as direct product development, process development or technology development in enterprises. But they can influence the innovation performance of the company positively or negatively as a formative, or as a practitioner of organizational policies. As a matter of fact, Huselid, Jackson and Schuler (1997) have defined "human resources management" as "strategic" and as the design and realization of internally consistent policies and practices that provide human capital and help to achieve firm objectives.

BACKGROUND

Studies on creativity and innovation in the field date back to 1940s and from 1940s to the present date, the aim to determine under which conditions creativity can be achieved and factors affecting innovation and innovation performance has been one of the most crucial issues in the field of management (Rothwell, 1992; Xu, Chen, Xie, Liu, Zheng & Wang, 2007).

The fact that many factors both inside and outside of the organization affect innovation performance, and because of the issues' multidimentional structure, from many aspects of life such as innovation economy, business, management, industrial psychology, sociology and marketing, countless lots of researchers and authors have been affected while interest in HRM started much later.

In the period up to the 1990s, in order to improve innovation performance, employees in the literature on Business and Management were seen as important assets in this process and proposals were made for employees. However, they did not go beyond being the tools used in the innovation process.

Up to 20 Until now, apart from just few researchers who mentioned the need for HR policies as an enterprise strategy regarding innovation, there were no studies on HRM-innovation relationship (Miles & Snow, 1984; Schuler & Jackson, 1987).

Schuler and Jackson (1987) citing Porter, argued that a firm should follow one of its innovation, quality improvement and cost reduction strategies to gain competitive advantage. The authors have stated that all three strategies must demonstrate employees with specific skills and their different role behaviors. According to competitive strategies, Miles and Snow (1984) apply firms are divided as the ones implementing defensive strategies, implementing leading strategies, and firms implementing analyst strategies. Researchers likewise argued that each type of strategy would need organizational and human resources and policies to be managed and regulated in a manner appropriate to it.

However, much attention has not been paid to HR policies for innovation in their work-the conversion to specific HR practices or the consequences of these policies to "organizational innovation".

What lies beneath handling HRM practices as a systems is the aim to increase the performance and organizational commitments of employees by directing their positive work attitude and behaviors effectively. For this reason, some HR activities sets systems are proposed in the literature for the implementation of HR practices in companies by bringing together a set of HR activities as the best practices of the HR. It is thought that these two systems will provide effective results with organizational output by increasing the skill, motivation of the employees and providing the opportunities that the employees can contribute.

Researchers show that high commitment work systems (HCWS) have a positive effect on various attitudes and behaviors. However, it is seen that these studies have produced different conclusions about whether high commitment work systems directly affect attitudes and behaviors or not. No consensus has

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been reached in the literature as to whether the perceived high commitment work systems and innovative work behavior are directly related or not and which mediating and moderating variables play a role in this relationship. Researchers present different approaches, assumptions, and suggestions regarding these relationships. In this study, a conceptual framework on how the high commitment work system can affect employees' innovative work behavior through the influence of employees on the ability-motivation-opportunity and organizational commitment levels will be discussed. In addition, related proposals will be made regarding mediating-moderating variables which are expressed as black box of HRM in relation to HCWS- innovative work behavior.

This study fills an important gap in the literature with regard to the introduction of HRM practices that support individual creativity and innovative work behavior. To have a clear understanding of innovation management, it emphasizes the relationship human resource management and innovative organizations. The relationship between HRM and employees' innovative behaviors at individual level are among the subjects this study will examine in addition to the focus on HRM practices. This chapter also shows the basic literature relevant to the concept of human resource management and innovation management and discusses the connections and discrepancies discussed by existing researchers and their empirical findings to emphasize this relationship.

In this study, in order to strengthen the theory of high commitment work systems-innovative work behavior relationship, issues in the literature such as resource-based theory, universalistic theory, contincency theory, AMO model, the best HRM practices, high commitment work systems, social exchange theory, organizaitonal commitment will be given.

Under the light of the above evaluations, it is expected that the work will contribute to researchers in HR and innovation management and practitioners in the sector explaining the high commitment work system and its impact of employees on the innovative behaviors and the reasons of this impact.

STRATEGIC HUMAN RESOURCE MANAGEMENT AND HIGH-COMMITMENT WORK SYSTEM (HCWS)

Quinn, Anderson & Finkelstein (1996), stated that having intellectual assets within the new economic structure, managing human and intellectual capital and directing them in line with enterprise aims is the most significant competency. Recently, it is seen that in HRM literature, high interest in HRM-Organizational Performance (OP) relationships has shifted to HRM-Organizational Innovation Performance (OIP) relationship and its results (Shipton, West, Dawson, Birdi, & Patterson, 2006; Beugelsdijk, 2008; De Winne & Sels, 2010). The interest in HRM-Innovation Performance (OIP) relationship at organizational level has accelerated after researchers and authors have reached a consensus on the effect of Innovation Performance (OIP) on Organizational Performance (OP).

In this context HRM applications have begun to be studied both at the organizational level (OIP) and at the individual level in terms of their impact on innovative work behavior (IWB) performance. It is stated that HRM-OIP organizational innovation performance relationship is studied more at organizational level but ignored at individual level (IWBP).

In the next part of the study, Soft and Hard Models of Human Resource Management, Resource- Based Theory, Universalistic Perspective of HRM, Contingency Perfectives of HRM, Strategic Fit which form the theoretical sub-structure of HRM- innovative work behavior relationship and some important HRM approaches and assumptions will be tried to be explained.

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Strategic Human Resource Management

Wright and McMahan (1992) describe Strategic Human Resource Management (SHRM) as planned HRM activities that are implemented to enable the business to achieve its objectives. According to Tyson (1995), strategic human resources management is to manage human resources processes in accordance with the strategy determined by the business as a management process that enables business strategies to be realized more effectively.

Schuler and Walker (1990), on the other hand, consider SHRM as a tool for integrating human resources management activities and its processes into operational strategies; and human resources strategies as the plans, the programmes, the body of trends which HR and department managers share in order to meet the human capital who can meet the future needs shaped by the shifts around the organization.

Soft and Hard Models of Human Resource Management

The soft view of HRM as "human management" was introduced in 1984 by Beer, Spector, Lawrence, Mills and Walton at Harvard University. Unlike hard HRM approaches, according to this model, human resources are the most important assets of the business, not the variable costs, and the employees are important sources of competition. The soft model emphasizes the individuals, the self direction of individuals, and centralizes commitment, trust and self-regulated behavior of employees. The assumptions about the nature of the human potential are based on the theories of organizational behavior put forward by Maslow and Herzberg. In this approach, HRM departments should undertake coordination tasks to ensure that the vision and mission of the top management are shared by employees and provide a high degree of commitment to the firm, competent and motivated workforce output. Approach emphasizes the importance of responsibilities that line managers must undertake in activities related to HRM (providing motivation for employees, improving training, managing performances, increasing employee participation and positively promoting perceived organizational support) and of cooperation between HR managers and line managers. Another important of the Flexible Approach is the fact that it points to the importance of employees' commitment to the business and to the role of the HR managers in increasing employees' commitment to the business in order for organizational aims to be successful at operational level (Baird & Meshoulam 1988; Mabey & Salaman, 1995; Dede 2007). advocate that HRM should focus on employee participation, ensuring the continuity of human resources, the reward system and the working environment in order to regulate the relationships between business and employees.

Universalistic Perspective of HRM

The researchers who suggest universalist theory (Becker and Gerhart, 1996, Delery and Doty 1996; Huselid, 1995; Osterman, 1994); claim that some HRM applications, called "best human resources practices," are more likely to create more effective results in organizational performances. According to the principles of the approach, some HRM activities are always superior to others, and these practices produce the best organizational outputs in all kinds of organizations. All of HRM activities can not be considered strategic, therefore HRM practice, which provides the highest financial performance, must be applied. When some HRM activities are used simultaneously, the impact of these HRM practices on performance is the result of the individual impact of each HRM application (Allani, Arcand & Bayad, 2003).

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Contingency Approach

Within the scope of system understanding and complementarity of SHRM applications, the internal compatibility of all individual HR applications and external compatibility with all organizational goals, environment and strategies of the SHRM system are discussed (Truss & Gratton, 1994). The situational approach suggests that organizations with HR policy and implementation are better prepared to respond to external factors that provide superior performance. This approach assumes conformity of HRM practices with business strategy. This approach assumes that the performance of the organization is the cause of the harmony between the structure of the organization and the characteristics of the environment (Allani et al., 2003). The situational approach assumes that the HR strategy will be more effective when it is appropriately integrated with a particular organizational and environmental context (April Chang & Huang, 2005).

Researchers working on integration between HRM and business strategic planning and management have generally followed two basic approaches. First approach suggests that HR function is a more reactive task and advocates that organizational strategy is the basis for HR management strategies and policies. According to these views; HR appraisal such as performance appraisal, employment, training and remuneration are important contributors to the implementation of organizational strategic plans for managers. Harmonization of HR planning with strategic management and business planning is possible with these systems. The second approach suggests that human resources can assume a more proactive role in the strategy-setting process. In this case, HR managers assume responsibilities both in the formulation of the strategies and in the implementation phase.

HIGH-COMMITMENT WORK SYSTEM (HCWS)

According to Allen and Meyer (1990), commitment is a psychological condition which reflects the relationship of individuals with the organization. Organizational commitment refers to the discretionary behaviors which employees show and go beyond though "they are not written in the contract" and the organization will benefit from in achieving its goals (Janssen, 2000; Henssen, Voordeckers, Lambrechts & Koiranen, 2014). Organizational commitment increases the potential for employees to take initiative and show innovative work behavior with a sense of ownership and responsibility for their own psychological ownership and a feeling of concern about the future of the organization.

The flexible model of HRM recognizes the development of human resources, the management of its performance, the provision of opportunity to participate and the creation of its commitment – as a key strategy for the survival and growth of organizations. The ever-increasing pressure of being more innovative has increased the expectations of organizations for innovative work behavior and employee performance. It is not enough for employees to effectively fulfill their role requirements. It is expected that both employees and HRM departments will go beyond fulfilling their role requirements and demonstrate extra role behaviors that they think the organization will benefit from.

Some authors consider innovative work behavior, as extra role behaviors (Veenendaal, 2015). The relationship of organizational commitment with innovative work behaviors plays a crucial role in affecting emyloyees showing extra role behaviors beyond their described roles by the organization. Because of this crucial role, researchers consider the relationship of organizational commitment with innovative

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work behaviors important and they suggest models at conceptual and empirical level which try to explain mediating and moderating variables (Oly Ndubisi & Agarwal, 2014; Kehoe & Wright, 2013).

Human resources departments can influence the knowledge, skills, attitudes, behaviors and motivations of employees through practices and policies they have developed (Wright, McMahan & McWilliams, 1994; Jackson, Schuler & Rivero, 1989; Schuler and Jackson, 1987). Arthur (1994) states that dependency-based human resource systems (HCWS) provide a psychological link between the aims of organizations and individuals, enabling employees to exhibit desirable attitudes and behaviors. In this context, commitment-based human resource systems include structured human resources practices in order to increase employee commitment and involvement.

The aim of participative work practices is to ensure that employees work more effectively and efficiently. It is also expected that these types of working practises should improve employees' perofrmance apart from their motivation and result in more ideas and information sharing. (Burton & O'Reilly, 2004) state that increasing the organizational commitment of employees will improve the performance of the organization due to better process and product quality.

According to Lepak, Liao, Chung & Harden (2006), it is necessary for human resources systems to be properly structured in order to reach various strategic goals (Arthur, 1992). Human resources applications as a system; complement each other, strengthen and influence the performance of individuals and associations through interrelated human resource practices (Laursen and Foss, 2003; Becker and Huselid, 1998; Huselid, 1995; McDuffie, 1995). As Laursen and Foss (2003) have pointed out, the impact of combined human resources practices on innovation performance may be greater than the individual impact of each human resource application.

HRM practices have limited ability to ensure innovative work behavior and organizational innovation. When these are combined with HRM practices, (providing more benefit as a result of interacting with another HRM practises) these HRM practice bundles (HCWP) influences business innovation performance and employee innovative work behavior more. For this reason, among the HRM practices which create high commitment business system, it is highly important to know which HRM practices will affect each other, whether these HRM practices will reduce each other's contribution, whether these HRM practices will affect employee creativity positively or negatively.

According to the complementarity of HR practices or systems, HRM systems are designed internally consistent and will create additional value for organizations if the HRM systems can then be linked to the firm's competitive strategy (Huselid 1998; Laursen & Foss, 2003). The concept of complementarity was first used by Edgewort. According to this, if the return obtained by applying any one of the HR functions increases the yield to be obtained by the application of the others, this application integrates the others and creates synergies (Ataay, 1999). However, if system elements conflict with each other internally or externally, instead of creating value, they can reduce or even eliminate each other's values (Truss & Gratton, 1994). According to Becker, Huselid, Pickus & Spratt (1997), lethal associations may have a single meaning for the firm, while other human resources become a disaster when combined with their applications and wrong choices.

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INNOVATIVE WORK BEHAVIOR

According to Scott and Bruce (1994); human beings are the only entity which pioneers innovations, develops new ideas, works on these ideas and matures them. Innovative employees are needed not only in the development of new ideas but in all stages of the innovation process.

Creativity skill and innovative work behavior are not the same thing. Innovative work behavior includes creativity, but it does not mean that an individual with every ingenuity will exhibit innovative work behavior. Some researchers say that concept of creativity is "the stage of producing ideas" of the innovative working behavior. In this context, creativity is considered to be the most fundamental element of innovative work behavior (IWB) and is considered important. Rawlinson (2017) states that creativity is in every human being, but in some individuals, with the influence of external influences, creativity is forced to remain hidden under some other abilities.

Until recently, research on employee creativity has focused on defining the individual characteristics of employees and the characteristics of their working environment in relation to creative performance (Ürü & Yozgat, 2009). Amabile (1988) indicates that organizational systems, procedures and processes will reach the organizational dimension by "strengthening individual creativity." In particular, researchers working in the field of psychology and industrial psychology, contribute a lot to the researchers who are trying to develop applications, and practitioners in the sector in order to increase innovative work behavior.

According to Oly Ndubisi & Agarwal (2014, p.43), "Encouraging their employees to be innovative is an option for institutions to be more innovative." Innovative work behavior often starts with the development of new ideas to overcome the problems and performance deviations in the innovation process.

Janssen (2000) also defines innovative work behavior as application of creating new ideas, presentation, practise discretionarily in order to provide benefit within the business role, group or organization.

De Jong & Den Hartog (2007, 2008) refers to innovative behavior as individual behaviors that employees express as discretionary to "bring out new and useful ideas, products, processes" and "put them into practice".

Dorenbosch, Engen & Verhagen, (2005) defines innovative work behavior is a voluntary initiative taking behavior by employees to produce and implement ideas, procedures, or products within a group or organization.

Until today, studies investigating the relationship between HRM practices and innovative work behavior have developed "different models of the stages of the development of innovative work behavior. Unlike many articles which considered IWB as a one-dimensional construct (De Jong & Den Hartog, 2010; Bonesso & Tintorri, 2014). Some scholars, such as Noefer, Stegmaier, Molter & Sonntag (2009), considered IWB as two-dimensional construct; idea generation and idea implementation. However, Some scholars considered as three-dimensional construct; idea generation, introducing ideas to others, and application (Janssen 2000, Ma Prieto & Pilar Perez-Santana 2014). However, there is no clarity among researchers in the literature regarding the measurement of innovative work behavior. Different researchers, who define innovative work behavior in 1, 2, 3, 4 or 5 stages, exhibit different approaches.

As a result, consensus has not yet been reached regarding the measurement of innovative work behavior processes in measurement tools developed to measure innovative work behavior.

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AMO MODEL AND INNOVATIVE WORK BEHAVIOR

Researchers working on the relationship between HRM and individual performance have mentioned three factors which they think have impact on this relationship. Vroom (1964) mentioned motivation and ability factors as the first two of these factors. According to Vroom (1964) as cited in Armstrong and Taylor (2014); performance is a result of ability and motivation. According to this, the impact of motivation on performance is not independent of employees' abilities. In the same way, the ability of employees are not independent of their motivation.

The effects of "ability and motivation on performance" are not additive. Namely, neither motivation nor ability alone is enough for performance. The absence of one (ability or motivation to be zero / zero) diminishes or totally destroys the other. The relationship of motivation with ability as personal traits affecting can be made clear by the following question; how motivating is it to talk about motivation to a person in a cockpit who has no idea about how to fly an aeroplane? But the presence of both talent and motivation has a more positive impact on employee performance than on their own. Armstrong and Taylor (2014) express the multiplicative relationsip between these variables with the following formula:

$$\text{Performance} = f\ (\text{Ability} \times \text{Motivation}).$$

Bailey, Berg and Sandy (2001) reported that "The fact that non-managerial employees have the freedom to organize their own work processes" creates an opportunity for employees to show their voluntary and self-sacrificing efforts for their institutions" This opportunity increases employees' performance.

Boxall and Purcell (2003) as cited in Armstrong and Taylor (2014) then proposed the following formula, expressed as "AMO", by combining Vroom's (1964) and Bailey et al. (2001).

$$\text{Performance} = f\ (\text{Ability} + \text{Motivation} + \text{Opportunity}).$$

According to the researchers, the AMO model suggests that employee performance is a function of Ability + Motivation + Opportunity to Participate.

When the model is focused on, "talent", "motivation" and "opportunity to participate" influence employees' performance independent of one another. The fact that one is zero does not remove the influence of other factors. The relationip in this form is additive, not multiplicative.

AMO model enables to identify the influence of employees' performance factor such as motivation, opportunity to practise with HR practises such as systems training practices and development practices, selection practices, recruitment practices, reward practices, compensation practices, incentive practices, involvement practices and job design practices enables employees to determine the "ability and motivation of employees to influence.

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HIGH COMMITMENT WORK SYSTEMS, AMO MODEL AND INNOVATIVE WORK BEHAVIOR

The necessity of innovation and the need for "innovative employees" are manifested in all areas and have become obligatory. However, current studies suggest that organizations need to define the characteristics and behavior of innovative individuals; as a result, they need to understand how they will support and encourage employees.

The HCWS creates a mutually beneficial environment for the employee and the organization. If the HR practises or systems, which are started by HRM department for employess' benefit are appreciated by the employees, then the employees will think that it is something for their benefit as a rewarding or appreciation by their company. Then employees whose expectations are met in line with reciprocity norm, feel obliged to give back what they were given. According to Social Exchange Theory; individuals, others (individuals, groups or organizations) collaborate to achieve the desired outcomes (Emerson, 1976). In this context, employees can also act as discretionary extra-role behaviors in order to achieve the results they desire, in order to achieve organizational goals (Emerson, 1976; Uen, Chien & Yen, 2009). In other words, it is stated high commitment work systems will positively affect the employees' attitudes and acts, and through intrinsic motivator or extrinsic motivator, the desire of employees to show innovative work behaviors will increase consequently.

Researchers working on the HRM-Performance relationship, focused on the the bundles of human resource (HR) rather than the effect of HR practises seperately in order to find out the effect of HRM practises on organizational performance (Huselid, 1995, MacDuffie, 1995). The additive, synergistic, and substitutive relations between the HRM practices that form the bundle that results from categorizing the HRM applications are determinative in achieving the desired results.

According to Jiang, Lepak, Han, Hong, Kim & Winkler (2012), HRM system consists of HR practises such as recruitment practices, selection practices, training practices, performance management practices, compensation practices, incentive practices, involvement practices and job design in order to find out the the construct of HR systems. Jiang et al. (2012) The categorisation of practices in bundles were put forward to enhance workers' abilities (A), motivations (M) and opportunities to participate (O), Specific HRM practises advocated the skills and knowledge of individual workers, their willingness to exert effort and their opportunities to express their performance and innovative work behavior (Jansen; 2000, Jiang et al., 2012)

Jansen, (2000) and Jiang et al., (2012) suggest that HRM practises enhance the skills and knowledge of individual workers, their willingness to exert effort and their opportunities to express their performance and innovative work behavior

Researchers who work on HRM innovation relationship on individual or organizational based benefited from HR practise bundles which were recommended in previous terms in order to create HR practise bundles to increase Ability (A) Motivations (M) and opportunities to participate (O) of employees based on AMO modelling (Janssen, 2000; Jiang et al., 2012; Bos-Nehles, Renkema and Janssen, 2017; Veenendaal, 2015; Schimansky, 2014).

A very useful framework for researchers is provided by the AMO model. In this context, HR practices, which are expressed as best HRM practices, are classified under the "ability enhancing human resorce practices", "motivation enhancing human resorce practices" and "opportunity to participate enhancing

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human resource practices" factors in terms of their impact on performance at the individual level. These classifications can be made as additive, substituve or synergistic as a result of bringing together the HR practices that are gathered under the factors of "ability enhancing human resorce practices", "motivation enhancing human resorce practices" and "opportunities to participate in enhancing human resource practices" the effects of HRM practices on innovative behavior are analyzed and analyzed.

Ability Enhancing Human Resorce Practices

"Ability enhancing human resorce practices" are usually associated practices with such as recruitment, selection and training development (Appelbaum, Bailey, Berg, Kalleberg, & Bailey, 2000; Jiang et al., 2012; Bello-Pintado, 2015; Janssen, 2000). Recruiting a new worker is not just adding a new person to the organization, but also incorporating new skills, knowledge and attitudes. HRD departments have to reach out to find the right candidates to add new skills, knowledge and attitudes to the organizaton, and to develop and implement the most appropriate selection practices in the organization. Selection techniques used in the process of selection and placement, and selection criteria (selection criteria, employees' capability to learn, interpersonal abilities, cultural fit attitudes, personality traits) will raise the innovation performance of the business choosing the canditates with the top innovative business attitude performance potential in the future. The extensive training programs and mentoring programs to support recruitment have been positive for the IWB according to (Ma Prieto & Pilar Perez-Santana, 2014).

Motivation Enhancing Human Resorce Practices

Performance management, compensation, incentive, internal promotion and job stability practises are generally associated with "Motivation enhancing human resorce practices" (Appelbaum et al., 2000; Jiang et al., 2012).

Organizational rewards are considered to be one of the most motivating HR practices to increase the innovative work behavior of employees in an organization. "Reward and wage systems" that can be developed and put into practice in the right way in organization are influencing the entrepreneurial and creative behaviors and organizational commitment in the organization by motivating the employees more positively. It is expressed that if the person who is awarded is informed about the extent of creativity, creativity will significantly increase. (Eisenberger & Rhoades, 2001).

However, Bos-Nehles et al. (2017) states that the relationship between Reward in the literature and innovative work behavior (IWB) is not clear. Bysted and Jespersen (2014) refer to negative relationships between the financial mechanism and the IWB.

To explain the differences in relation to IWB-Reward, the importance of intrinsic motivation as one of the most important elements of innovative work behavior is expressed by the research. Internal motivation is motivating itself. External motivation is; financial or non-financial rewards outside of the job itself direct the person to a certain behavior. Ürü (2009) states that internal motivation is a prerequisite for creativity, and that creativity must be cautious when awarded. Where, according to Hennessey and Amabile (1998), if the person is motivated internally strongly, the external reward increases the creativity of the person, creating a synergistic effect; when the person is not motivated internally, external rewarding reduces creativity. Amabile (1998) states that "The effects of internal-external motivation on creativity may vary depending on the type of external motivation and the timing of the external award.

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Janssen (2000) emphasized the importance of employees' effort-reward fairness perception regarding the reward-innovative work behavior. According to the researcher, there is a positive relationship between effort-reward fairness perception and innovative work behavior. Also, and employees' sense of justice in wage distribution increases the motivation of the individual to show organizational commitment and creative work behavior. The fair and balanced distribution of salary can increase organizational commitment and innovative work behavior. Promotional opportunities and incentives also increase innovative work behaviors.

Opportunity to Participate Enhancing Human Resorce Practices

Opportunities to participate into enhancing human resorce practices are associated some practices such as practises of job autonomy, employee participation, information sharing and team work (Appelbaum et al., 2000; Ichniowski et al., 1997; Jiang et al., 2012).

According to Bailey et al. (2001) if employees who are not at managerial level have the freedom to organize their own work, employees' innovative work behaviors will be motivated. In the same way, one's work autonomy has an influence on the innovative work behavior by increasing organizational commitment. Job autonomy enables the employee to develop new ideas and find more effective ways of doing their jobs.

Practices to increase employee participation are about how things are organized and how employees do their jobs. The extent of employees' job autonomy and job design are expressed as the best HR practises in HRM-innovative Work behavior relationships regarding the HR practices which increase the employees' participation into innovative behaviur. It was stated by Beugelsdijk (2008) that task autonmy and performance based salary raise can increase performance. Also, the importance of empovernment was expressed.

DISCUSSION

It is stated that innovative work behavior, which is not based on any prize or punishment expectation and is regarded as a collective innovative behavior to increase the function and efficiency of the institution, is at the same time considered organizational citizenship. High commitment work practices addressed by the authors involve empoverment, participative decision making, job rotation practices, employment security, recruitment, training and development activities, performance evaluation based on continuous and constructive feedback, providing employees' and management, long-term commitment-based rewards and rewards (Lepak & Snell, 1999, 2002).

Employees' negative of positive perception of high commitment-based HR system has impact on employees' work attitudes and behaviors (Latorre, Guest, Ramos & Gracia, 2009).

High commitment work practices (HCWS); are very closely related to the concepts of organizational support, psychological contract and organizational citizenship. Randall, Cropanzano, Bormann and Birjulin (1999) stated that organizational support perceptions have a positive relationship with employees' organizational behavior. According to Robbins and Judge (2012) perception of organizational support is expressed as "to what extent employees believe the organizations value their contribution. Research results put forward that employees with high perceptions of organizational support will feel themselves as part

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of a larger organization and accordingly will exhibit behaviors that are desired in terms of organization such as organizational citizenship behaviors. While AMO Model manages employee business behavior and performance, it provides a employee-oriented perspective in the design of HRM applications (Özçelik & Uyargil 2015; Appelbaum, et al., 2000). Schimansky (2014) argues that the high commitment work system positively influences innovative work behavior with the influence of individual ability, motivation and opportunities (Ability, Motivation, Opportunity-AMO). One important thing that researchers should pay attention to is that The AMO model is concerned with the differences between the expected effect and the actual impact of high-involvement business systems through organizational outreach individual performance. According to Bos-Nehles et al. (2017) even if HRM systems are fairly well-designed and it will not guarantee that these systems will be put into practice with the same efficiency. Bos-Nehles et al. (2017), other departmental managers play a significant role in the implementation of well-designed HRM systems or operating systems. According to this; other line manager's perception of innovation, attitude towards HRM applications designed to encourage innovative work behaviors in the process of managing creative work behaviors of employees, encouraging appropriate attitudes and behaviors in employees and showing extra role behaviors, affect the degree of cooperation and willingness to implement these systems.

In addition, line managers' perception of innovative work behavior or their attitudes and managing styles towards the employees who have innovative traits can reduce or even dismiss employees' innovative work behaviors, as well as their ability to empower innovative employee behavior. In this context, the ability of other department managers to develop innovative behavior and the willingness to do so are very important in terms of HRM-IWB relationships. In fact, it has been stated for a long time that along with senior managers, line managers also have responsibility in designing and implementating of all HRM practices, policies.

In addition to the support and willingness of senior management and other department managers to implement HRM systems in design, which HRM applications should be designed accordingly to improve innovative work behaviors, the last point is how employees perceive these HRM systems and applications.

SOLUTIONS AND RECOMMENDATIONS

Laursen and Foss (2012) has conducted a comprehensive literature review that outlines the empirical work on the impact of HR practice / HRM bundles at organizational level on innovation output. Seeck and Diehl (2017) reported a very comprehensive literature review, focusing specifically on studies between 1990 and 2015 using empirical research using the bundle approach to HRM (Seeck & Diehl, 2017). Bos-Nehles et al. (2017) has conducted a literature review reporting empirical studies of HRM-innovative Work Behavior relationships.

Therefore in this chapter, it has been avoided to repeat reported studies because of their extensive scope (till 2017) of their empirical work at both individual and organizational level with HRM Innovation relationship.

When these studies related to HRM-innovative work behavior were examined, various methodological limitations were identified in the researches. It is important to examine these limitations and draw attention to them in order to shed light on the research to be done in the field of HRM-Innovation. Furthermore, in terms of the reliability of the findings obtained, it is necessary to evaluate the research results within the scope of these limitations.

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The first of these limitations comes from the fact that researchers have reached an opinion consensus that the HRM practices or systems affect the IWB. However, researchers use different methods to measure and interpret innovative work behaviors. The different methods used also differentiate the reported findings.

According to Bos-Nehles et al. (2017), while the innovative work behavior is measured and accepted as a one-dimensional construct by some researchers (Bonesso & Tintorri, 2014; De Jong & Den Hartog, 2010). As already noted, most articles considered IWB as a one-dimensional construct (De Jong & Den Hartog, 2010; Bonesso & Tintorri, 2014). However, some scholars, such as Noefer et al. (2009), measured IWB as "two-dimensional construct"; "idea generation and idea implementation"; Researchers noted that HRM practices differ in the effects of the "idea generation" and "idea implementation" phases. In this context, more empirical work is needed to get to a consulate with IWB measurement. However, two-dimensional structures instead of one dimension will give more insightful results.

The fact that researches are usually based on one point in time (cross sectional) data creates another limitation. In addition, it will be significant to estimate the longitudinal effects and correlations in multiple time periods by repeating the researches not only in one dimension but in many years. Experimental research designs are less preferred due to economic and technical insufficiencies. However, experimental research designs can be very useful in ensuring the internal validity of research in which the factors affecting HRM-innovative Working Behavior relationships are identified.

According to the researchers, another methodological problem is the questions asked to the employees by their own IWB levels. Questions that people ask about their innovative work behavior (IWB) level lead to socially desirable answers. For example, Janssen (2000) found that when employees were asked questions about identifying innovative work behavior potentials, "different results were obtained between employee self-ratings and manager ratings. Especially, it is stated that IWB is more likely to exaggerate innovative potentials when they perceive IWB as a measurement tool for determining their career development. In a similar way in Laursen; HCWP-Innovation in relation to performance relations, researchers have been warned about the socially desirable bias in responding to questions about HRM units that have designed these systems in view of their knowledge of the systems better (Laursen & Foss, 2012).

The bundle approach put forward the assumption that individual practices should fit together in a complementary manner and be implemented in bundles. (Boxall & Macky, 2009; Boxall & Purcell, 2011). Bundled practices are associated with supporting employee commitment and involvement, leaning towards the recent emphasis on so-called high-performance and high-commitment work systems. (Seeck & Diehl, 2017). Despite the consensus on this system, the naming of HR systems in terms of clarifying the structure of the HR systems has varied from one research to another. Considered as a pioneer work; Arthur (1992, 1994) has considered the HRM systems proposed in his research as "high commitment HR systems"; Becker and Huselid (1998) called HRM systems high performance work systems. Guthrie (2001) preferred to call it high involvement HR systems; Lepak, Taylor, Tekleab, Marrone & Cohen (2007) named it as high investment HR systems. Laursen and Foss (2012) referring to Teece (2007), Colombo and Delmastro (2008) and their own study, expressed their "new" or "modern" HRM practices in 2014, using the same name they chose in 2003, as they did in their work.

In this study; High Commitment Work Practices were highlighted "to emphasize employee commitment and involvement". The fact that the composition of the HR systems varies greatly from one to the other causes differences in the names of these systems to clarify the structure of the HR systems and cause difficulties in the knowledge accumulation of the HR systems (Jiang et al., 2012). The fact that there are differences in HR bundles that make up HRM systems is another difficulty in comparing the

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research findings about the relationships at the multilevel level. In order not to experience difficulties in HRM innovation research unlike other researchers did in their researches about HRM-Performance relationship, researchers need to reach a concensus at least on the conceptualization of HR systems, both in terms of knowledge and sharing information.

FUTURE RESEARCH DIRECTIONS

This study aims to fill an important gap in the literature with regard to the introduction of HRM practices that support individual creativity and innovative work behavior. This chapter also shows the basic literature relevant to the concept of human resource management and innovation management and discusses the connections and discrepancies discussed by existing researchers and their empirical findings to emphasize this relationship.

Future researchers can explore how innovative work behaviors at individual levels affect employees' innovation output and performance at the organizational level (Bos-Nehles et al, 2017; Shipton et al., 2016). Multi-level approaches will provide more integrated information about Innovation-HRM relationships.

As mentioned earlier, it will bring more insightful results for researchers to obtain data by repeating them throughout the years with more than one cross sectional periods rather than one cross sectional period. As stated above, experimental research designs produce more information in identifying the factors affecting HRM-innovative work behavior relationships.

At the organizational level, the effect of factors on innovative work behavior can be investigated. Although there are studies how organizational level human resource practise may strenghten innovative work behavior at individual level, there is still need for empirical work.

It seems that researchers who work on HRM innovation relationship at organizational level ignore creativity and motivation researches in psychology and industry relationship (Laursen & Foss, 2012; Seeck & Diehl, 2017). These studies can contribute to HRM-innovative work behavior relationships by making the relationship between innovative work behavior measurement and individual-innovative work behavior clear. Motivation, Creativity related work also will be very useful in explaining HRM-individual work behavior relations. For this reason, it is suggested to investigate the effect of individual characteristics on innovative work behavior.

Innovative work behavior does not seem to have been reached consensus for the measurement of processes for the time being. The need for the development of measurement tools continues to exist in the field. Creativity and motivation researches in psychology and industry can contribute to the development of measurement of innovative work behavior processes.

There is a need to increase the number of empirical studies regarding which moderating and which mediator variables, how and by which HRM and innovative work behavior relationship influences. Empirical study of these relationships will be helpful in terms of HRM-innovative work relationship.

CONCLUSION

It is suggested by other researchers that the AMO framework is a way to expand the theoretical foundations of the HRM-Innovation relationship relationship (Seeck & Diehl, 2017; Bos-Nehles et al, 2017). In this study, on the basis of approaching HRM practises as a system there is the rationale that innovative

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work behavior is a result of employees' knowledge skills and competences and company's "employee involvement opportunities" is formed. Therefore in accordance with the rationale that practices to improve the three component should be used together, ability enhancing HR practices, motivation enhancing HR practices, opportunities to participate enhancing HR practises are categorized in line with AMO model and answers are sought for how and which HRM departments enhance innovative work within the framework of AMO model and the most referred HR practises.

The fact that high commitment work systems have a positive effect on various attitudes and behaviors are shown by researchers. However, different conclusions about whether high commitment work systems directly affect attitudes and behaviors or not have been produced by these studies. There is no concensus in literatüre as to whether the perceived high commitment work systems and innovative work behavior are directly related or not and which mediating and moderating variables play a role in this relationship. Regarding these relationships different approaches, assumptions, and suggestions are presented by researchers. In this study, a conceptual framework on how the High Commitment Work System can affect employees' innovative work behavior through the influence of employees on the ability-motivation-opportunity and organizational commitment levels was discussed.

The way influence innovation, and how the clustering of specific practices matters for innovation outcomes are affected by Individual practices were among the subjects to have been discussed. In accordance with the literature on HRM and organizational performance, the best-practice approach or the bundle approach to HRM were used. Advancing and encouraging theory development in the field and guiding future empirical research are among the expectations.

In this study, in order to strengthen the theoretical structure of high commitment work system-innovative Work Behavior relationship, issues in the literature such as Resource-Based Theory, Universalistic Theory, Contincency Theory, AMO model, The best HRM practices, high commitment work system, social exchange theory, organizational commitment was given.

Under the light of the above evaluations, it is expected that the work will contribute to researchers in HR and innovation management and practitioners in the sector explaining the high commitment work system and its impact of employees' on the innovative behaviors and the reasons of this impact.

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KEY TERMS AND DEFINITIONS

AMO Model: A model claiming that employee performance is a function of ability, motivation, and opportunity to participate.

Contingency Approach: It refers to external harmony with organizational goals, environment, and strategies as a whole, the human resource management system, which is formed by the internal compatibility of all individual human resource applications and individual human resource management practices and policies.

Complementarities: If the return obtained by applying any of the HR functions increases the return to be obtained by the application of others, this practice can be said to unite other HR practices.

Extra Role Behavior: With this kind of behavior, volunteerism in the behavior of the individual is emphasized apart from the the formal duty definition of these behavior.

Organizational Citizenship Behavior: Refers to the extra role behaviors that go beyond the formal job descriptions and expectations which the employess are willing to Show in order to contribute to the organization.

Organizational Commitment: It is the psychological condition that reflects the relationship between individuals and organizations, which is necessary for employees to go beyond what is defined in the contract and to demonstrate discretionary behaviors that will benefit the organization in achieving its goals.

Psychological Contract: It is defined as an official and non-written contract that can affect the occupational behavior of the occupation and the employer regarding the expectations, perceived commitments, and obligations between the employer and the workplace in organizations.

Universalistic Perspective of HRM: It is an approach that claims that some HRM activities are always superior to others, and that these practices generate the best organizational output in any organization, creating more effective results on organizational performance.

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Chapter 2
Contemporary Issues and Challenges in Marketing Environment Worldwide

Fatih Pinarbasi
Istanbul Medipol University, Turkey

ABSTRACT

Investigating contemporary issues in specific scientific areas is a continuing concern within understanding underlying conditions and decision making. In the last few decades, human beings have witnessed intense technological developments. The main challenge faced by marketing scholars and practitioners is how developments and changes would affect consumer and brands as an integral relationship in different contexts. This chapter examines contemporary issues affecting managerial and innovative thinking in marketing environment. In this study, the concepts of technology, social network/social media, consumer, and brand are central to contemporary issues and challenges in marketing environment. In a descriptive approach, sub-concepts of main concepts are discussed, Then selected studies and questions about future researches are stated. This study offers an integrative approach and important insights into marketing issues and marketing management.

INTRODUCTION

On the basis of strategic thinking and marketing management, a good analysis of the present cycle and the changes that take place are important. In today's marketing environment, significant changes and developments are intense. A holistic approach can be achieved by integrating these changes and developments to complement each other.

There were many studies in literature about current situation of marketing and changes. These studies include summarizing findings that cover certain periods or express the situation at the end of a particular period. For example, Kumar (2015) studied the evolution of marketing as a discipline and discussed both historical periods of marketing and future of marketing. One of author's comment is valuable;

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In light of these changes, we must remain cognizant about the dynamics in the marketing environment—that is, look out for the questions that need to be answered and the issues that need to be solved—to empower ourselves with the knowledge we seek.

In another study, Kumar (2018) mentioned about "transformative" process that marketing world could live in next two decades. According to study, there is a rapidly moving change in business and marketing environment and businesses act in regard to this "fast" phenomena. The description included in that study is;

Transformative marketing is the confluence of a firm's marketing activites, concepts, metrics, strategies, and programs that are in response to marketplace changes and future trends to leapfrog customers with superior value offerings over competition in exchange for profits fort he firm and benefits to all stakeholders.

There are two ideas in that definition that reflect the general situation. First one is "in response to.." section, there is a reciprocal situation between marketing environment externally and businesses internally. There are factors have actions about technology, marketplace and etc. so they cause reactions in business strategies. Second idea includes "competition" reflecting the differentalization and competitive part of today's marketing.

As the side of marketing studies summarizing changes, there are many different studies that summarize the changes when the changes and developments in the world are evaluated in terms of marketing researches.Yadav and Pavlou (2014) examined marketing concept by computer-mediated context. They adressed four interaction types related to computer-mediated environment. These are consumer-firm interactions, firm-consumer interactions, consumer-consumer interactions and firm-firm interactions.

From these facts, it is necessary to examine contemporary marketing issues, in a reciprocal and interaction based framework. Therefore concept in Figure 1. created for this study.

Issues related to marketing environment are grouped under 4 main categories in this study. All categories starts with main concepts and continues with selected studies. After selected studies, possible questions for future researches will be presented.

Technology side refers to technological advancements and digital technologies reflecting marketing/consumer/brand constructs. Industry 4.0, big data, internet of things, artificial intelligence, virtual/augmented reality and blockchain concepts will be included in technology side.

Social media/social network side refers to common side between techology and customer sides. Consumer engagement, word of mouth, measurement of marketing, content concepts will be included in social media/social network side.

Customer and brand sides of this study mostly refers to "affected" side of other sides; technology and social media. Customer side reflects people in marketing studies and brand side finalise it by adding business side.

When all of these categories and sub-divisions are combined in general, a holistic perspective of current issues in marketing will be provided. This holistic perspective will be useful for a strategic management approach that generates opportunities for innovative thinking and future.

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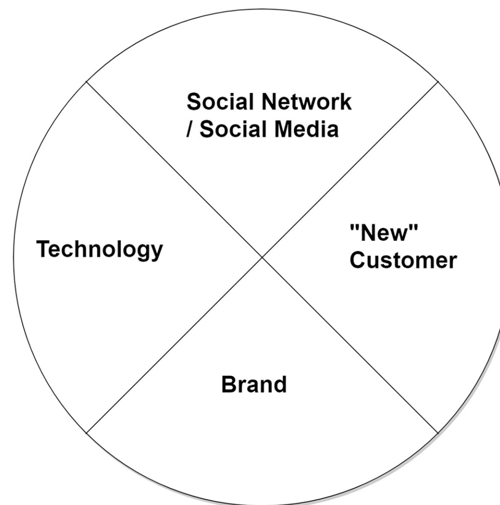
Figure 1. Categories of marketing environment ıssues



"TECHNOLOGY" SIDE OF MARKETING

Technological developments are one of the most important factors affecting today's marketing. The technologies that have taken place in recent years, when changes are rapidly experienced, are intensely affecting consumers, firms and markets. Technological changes, which are the main factors that play a role in the changes in other areas of the market, will be reviewed in titles.

- **Industry 4.0:** Refers to different changes in manufacturing systems and these changes are primarily IT driven. The fundamental concepts of industry 4.0 are smart factory, cyber-physical systems, self-organization, new distribution and procurement systems, new development systems for product and service, adaption to human needs and corporate social responsibility (Lasi, Fettke, Kemper, Feld, & Hoffmann, 2014). Some aspects of Industry 4.0 directly affect marketing, while others affect indirectly.
- **Big Data:** The first element of technological factor, Big data is related to amount and volume of data surrrounding as by technological devices. Usage statistics, social media datas, other device datas reflects the big data concept. Big data is an information asset which was characterized by volume, velocity and variety. It also has technologic and analytical methods to create value (De Mauro, Greco, & Grimaldi, 2016).

Beyond the technological and "machine" side of this factor, there is a question to be answered for marketing side. "What does big data make sense for marketing?". It is mostly related to sensemaking process which implies transforming unknown to known concept. There are lots of data which explained as "mass", and computer technology enable business to produce meaningful information from that data. Big data has own methods to do this process. Machine learning technique used in (Sundsøy, Bjelland, Iqbal, & de Montjoye, 2014)'s study is an example. They used machine learning technique to segment customers, further, to improve conversion rates for best marketing practices.

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- **Internet of Things:** According to Gubbi et al. (2013), internet of things refers to interconnection of devices about sensing and actuating. This interconnection makes devices share information across the platforms with a framework, and create a common operating framework for innovative applications.

The concept of internet of things, which can be summarized as devices that communicate with each other for specific purposes, is important for marketing in terms of diffusion and speed.The internet of things is one of the most up-to-date in academic terms, for example, a special issue on this issue was published in 2017 (Journal of Marketing Management, 2017). Some of the themes related to internet of things in marketing context are value co-creation (Balaji & Roy, 2017), interaction style to customer (Wu, Chen, & Dou, 2017), consumers' resistence (Mani & Chouk, 2017).

- **Artificial Intelligence:** Kalogirou (2003) defined AI as ability of machine/artifact performing similiar functions which characterize human thought. Kalogirou (2003) segmented AI into five parts, these are expert sysmems, genetic algorithms, artificial neural networks, fuzzy logic and hybdrid systems. Artificial intelligence can be used in a variety of different fields for marketing decision making methods and decision making systems. One of the example case of artificial intelligence is chat-bots on social media. Brands can use chatbots to deliver customer value faster and the system could be integrated to main communication system of brands.
- **Virtual/Augmented Reality:** Brooks (1999) defined virtual reality experience as the experience that user immersed in a responsive virtual world effectively. For human side, concept of presence which is defined as the sense of being in an environment is important for virtual reality (Steuer, 1992). On the other hand augmented reality, according to Zhou et al. (2008), refers to technology allowing virtual imagery created by computer to overlay physical objects in real time.

Huang and Liao (2015) studied augmented reality interactive technology with technology acceptance model and experiential value. According to study, consumers's innovativenes related to sustainable relationship behavior with augmented reality interactive technology. This study also includes the implications of which types of features addressed to which users. Usefulness, service excellence and aesthetics are focused by consumers with high cognitive innovativeness. On the other hand consumers have low cognitive innovativeness, were closer to playfulness and ease of use characteristics.

The use of virtual and augmentedreality has an important potential for marketing during the consumer experience. For example Yim et al. (2017) studied augmented reality technology in e-commerce context. They found that AR based product presentations have more effective communication benefits than web-based product presentations.Yaoyuneyonget al. researched augmented reality technologies with traditional print ads and QR code print ad together. In that comparative study augmented reality hypermedia print ad was preferred and higher degree of perceptions about informativeness, effectiveness and novelty.

- **Blockchain Technology:** According to Glaser (2017), blockchain is basicly a distributed, transactional database. It depends on peer-to-peer communication network and each network has its own layer of protocol messages for communication. Blockchain use complexity to store all transactions in efficient way. Current status of system relies on all previous transactions (Glaser, 2017). So it is a "chain" way of transactions between nodes.

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When it comes to the marketing side, the transactions that the two sides exchange with each other can generally be considered within the context of blockchain. For example, the supply chain activities contained in the distribution component of the marketing mix comply with this context. Transactions between the parties in the supply chain can be carried out more securely with blockchain technology. On the other hand from the consumer viewpoint, blockchain and cryptocurrencies would affect transaction styles in the near future.

There is a very widespread work area in the technology part of the current issues in the market. Table 1 shows selected studies on technology side of current issues in marketing environment.

Following all conceptual information and selected studies, the following questions arise when technology is evaluated in terms of current market issues:

- What kind of processes will be experienced in the process of perceiving and adopting new technologies and products in the market?
- What kind of changes will be experienced on the view of current and new information as the power of information processing and the increase of speed?
- How will big data affect companies' understanding of consumer and marketing?

Technological advancements play important role for marketing environment and transformative marketing, but they are not only drivers (Kumar, 2018). This clarifies the limits of technological progresses, there is space for other environment factors to explain changes fulfilly. Social media and networks, one of the other environmental factors, will be discussed in the next section.

Table 1. Selected studies for technology side of marketing

Author	Date	Topic	Summary
Jara et al.	2014	Internet of things, participative marketing	Examined internet of things, participative marketing and social media marketing together. Identification and interaction capatibilites of internet of things are discussed.
Tirunillai and Tellis	2014	Big Data – Brand Analysis	They implemented strategic brand analysis with big data and latent dirichlet allocation.
Fan et al.	2015	Big Data Analytics	They researched big data analytics in marketing context. Data sources, methods and applications were examined together with marketing elements in a framework in this study.
Scholz and Smith	2016	Augmented Reality and Consumer Engagement	They studied augmented reality, its components and AR campaign. They proposed eight recommendations for maximizing consumer engagement.
Hsu and Lin	2016	Internet of Things	Internet of things services adoption was examined in this study. The perspective used in this study included network externalities and concern for information privacy.
Salehan and Kim	2016	Big Data – Online Online Consumer Reviews	They used sentiment mining to examine online consumer reviews. Positive levels of sentiment was found related to readership.
Yang et al.	2017	Gamification, Brand Engagement and Attitude	They examined gamification impact on brand engagement and attitude. They applied technology acceptance model to gamification context.
Suh and Prophet	2018	Immersive Technology	They reviewed scientific studies in immersive technology subject and applied bibliographic analysis to studies. They presented a framework for subject.

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SOCIAL NETWORK AND SOCIAL MEDIA AND NETWORKS

For the social network side of current issues, main theme relies on how people live. For thousand years, even first ages, people lived in social networks, even first ages. With the widespread of the digital world, the social nature of mankind has also been reflected in the digital world. People signed up to social network websites and had conversation with old friends from their past. They reached to celebrities through social network websites and follow their daily lives. At sum they are living in a "network" with all their friends, families, colleagues and celebrities, together.Main question comes to mind is "how networks affect people?" or reversely "how people affect networks?". Ansari et al. (2011) studied about modelling multiple relations in social network context and they used hierarchical bayesian methods to model relations in two different scenarios. This study and its impications support the idea of exploring underlying factors in social networks.

One of the main factors of social networks is tie between the sides of networks. Strong ties and weak ties do not have same affect for exchanging ideas/emotions.Aral and Walker (2014) examined ties and embedness variables in social influence context and they found that both variables had increasing effect on influence. Some of other contexts on this topic are; peer influence on buying service (Bapna & Umyarov, 2015), personality factors (individually level) (Acar & Polonsky, 2007),viral effects and purchase intention (Gunawan & Huarng, 2015) and students' academic performance (Paul, Baker, & Cochran, 2012)

Social media is a form of social network sites.According to we are social, (2018) penetration rate of active social media users is 42%, which means 3.196 billion of 7.593 billion people on world actively uses social media. The report also indicates that active social media users amount increased by %13 since 2017 January. Therefore social media and its reflection to daily lives and consumer is important for marketing. Lamberton and Stephen (2016) studied social media, digital marketing and mobile marketing together in their study. According to authors, social media domain had three themes in period 2000-2014. These themes are i) invidiual self expression (as amplfying), ii) user generated content as marketing tool, iii) capturing marketing intelligence in specific SM platforms.First theme was mostly related to consumer behaviour, second theme was including both sides of marketing (consumer and brand) and last theme was related to platform-based information.

Social media is studied in different contexts, influence of personality to use of Facebook (Ryan & Xenos, 2011), social connectedness (Grieve, Indian, Witteveen, Anne Tolan, & Marrington, 2013), user gratifications of Pinterest social media channel (Mull & Lee, 2014), and complaint management (Einwiller & Steilen, 2015),

Besides social media was studied in different contexts, there are some major topics emerged from studies. Consumer engagement, electronic word of mouth, marketing measurement and content side of digital marketing are some of these topics.

- **Consumer Engagement:** One of the main topics of recent studies on social media is consumer engagement. It is important for brands to understand how people spend their time in social media, what they like and how they engage. Hollebeek et al. (2014) studied to develop a scale for measuring consumer brand engagement in social media. According the results, consumer brand involvement plays antecedent role for consumer brand engagement, while self-brand connection and brand usage intent have result roles.

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On the other side, not only for "network" side of marketing but also for social media side, one of the main topics of marketing is word of mouth. Exchanging positive / negative information / experiences among consumers is a very old issue. This issue has become one of the important topics with the spread of digital channels. Chu and Kim (2011) studied e-wom in social network sites subject to examine determinants of consumer engagement. Luo and Zhong (2015) used social network analysis to examine electronic WOM about travel subject. Wolny and Mueller (2013) expanded electronic WOM subject to fashion consumers context and found that high level of brand commitment and fashion involvement variables had effect on talk and interact with fashion brands.

In addition to the consumer-related concepts on the social media side, one of the topics examined is the measurement of marketing. Measuring the effectiveness of marketing activities in the social media will guide the decision-making process in marketing strategies and plans. The expectation of the dimensioning has led to the academic and practical researches. Peters et al. (2013) proposed a toolkit including three components. Their study contained elements like motives, network structure, social roles & interactions and content elements which derives from marketing, sociology and psychology areas. Kumar et al. (2013) studied on performance measurement of an ice cream retailer. Their aim was to measure social media ROI and WOM value. Customer influence effect and customer influence value metrics were used in study and results showed that social media could help growth in sales, word of mouth positivity, brand knowledge extension and growth in return of investment.

Last but not least, the side of generating content, and generated content types are important for social media. User generated content is an important research subject for marketing.Daugherty et al. (2008) researched consumer motivations to produce user generated content, they concluded that two functions of attitude; ego-defensive and social; were most critical variables for motivations. Smith et al. (2012) examined user generated content by brand-related side and compared them across Youtube, Twitter and Facebook websites. With a content analysis from 600 user generated content, they proposed a framework to compare brand-related user generated content. Ye et al. (2011) studied user generated content by travel context and found that reviews about travel had impact on online sales. 10% increase on review ratings caused more than 5% increase on online bookings.

Table 2 shows an overview of selected studies from social network and social media side of current issues in marketing environment.

Following conceptual information and selected studies, these questions arise when social network and social media evaluated in terms of current market issues:

- Which changes and developments in consumer networks can take place with the spread of social media and the widespread use of new social media channels?
- What will be the individual and social influences of social networking in the future?
- How will new content formats and formats affect consumers?

Following the beginning of the effects of technology, one of the external factors, the concept of social media, which is the channel through which changes have taken place, has been mentioned. Later sections will focus on the reflections of the changes, and the changes on consumers and brands.

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Table 2. Selected studies for social media and networking side of marketing

Author	Year	Topic	Summary
Hanna et al.	2011	Social Media	Social media was conceptualized as an ecosystem including digital and traditional media.
Wilcox and Stephen	2012	Consumer Behaviour	Examined social network with self-esteem and self-control variables by implementing five experiments
Rishika et al.	2013	Social Media Participation – Visit Frequency and Profitability	Relationship between social media participation and customer-firm relationship intensity was examined. According to results, high participation was related to increase of costumer visits.
Jin and Phua	2014	Electronic Word Of Mouth - Social Media	They used electronic word-of-mouth variable with buying intention and social identification with celebrities variables.
King et al.	2014	Electronic Word of Mouth	They reviewed and presented a synthesis about electronic WOM. They studied with 190 studies and discussed key issues.
Berger	2014	Electronic Word of Mouth	Discussed five main functions of WOM. These are impression management, information acquisition, social bonding, persuasion and emotion regulation.
Ashley and Tuten	2015	Branded Social Content and Consumer Engagement	Top brands' social media strategies were analyzed through content analysis and creative social media strategies were included.
Eisingerichet al.	2015	Word of Mouth	They examined and compared word of mouth concept between online and face-to-face versions.
Felix et al.	2017	Social Media Marketing	Integrative framework for social media marketing was proposed due to fragmented literature.

"NEW" CUSTOMER SIDE OF MARKETING

Along with the development of other factors in the marketing environment, developments are also taking place in the consumer concept, which is the central element of marketing. To give an example to explain these changes better, we have two different customers, one in the 60-70's and one in the present. The one in past uses mainstream media in dailylife; radio, newspaper and TVs. He has few friends and has an ordinary job. Other one lives in today and uses many media mediums in daily life, checks daily social media updates, follows not only friends but also celebrities and brands on social media. Here are the questions make sense to understand the change in customer context.

- Is the same as the number of brand messages that arrive in a day when these two consumers are treated in the context of consumer-brand relations?
- Are there differences between the ways in which brands reach consumers and the number of reach channels?
- Are the social environments in which the consumers are influenced, influenced and influenced similar?

Consumer behaviour is one of main factors in marketing environment. In traditional marketing research it was one of main topics studied across years. With digital technologies and social media factors, the scope of consumer behaviour was extended to digital and mobile areas. For example one of main topics in consumer behaviour is self and extended self topic was affected by digital advancements. According to extended self concept, possessions contributes to identities and also they are reflections of identities (Belk, 1988). This concept fits to many situations which relation between customers and possessions take place. By time passes and technological changes take place, extended self concept interacted to new

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environments. Belk (2013) again studied extended self, but this time, in a digital context. Five changes emerged in that study;

1. Dematerizalition
2. Sharing
3. Co-construction of self
4. Reembodiment
5. Distributed Memory

On the other hand, consumer choices were important factor for marketing environment. In today's marketing world, consumer choices are more important for business and marketing activities. Labrecque et al. (2013) examined the effect of consumer in their study and they included the concept of "consumer power" in relation to the influence of consumers in their work. According to this study consumer power had 4 distinct sources, these are demand, information, network and crowd-based power.

While customer changes by time, brands adapt theirselves to new situations. For example calculating lifetime value of customer relies on traditional marketing view. But while new channels emerges, additional measurements could be added to calculation. Chan et al. (2011) calculated lifetime value of customer by google search advertising acquisitions.

Additionally, the consumer part of the marketing has in common with the other aspects of the marketing environment. Stephen (2016) examined the role of social media and digital to consumer behaviour in his study and discussed previous researches together. Five themes emerged; consumer digital culture, effects of digital environments on consumer, mobile environments, responses to digital advertising and online word of mouth. Thus, consumer related studies could be researched with other themes of current marketing issues. For example, customer relationship management is one of the common theme in consumer research. Malthouse et al. (2013) studied customer relationship management topic in social media context. The term "social CRM house" was addressed in that study and they discussed social media engagement with business side variables.

Consumer research, which is one of the current marketing topics, has a lot of different topics and concepts in the recent period. Table 3 lists selected studies about consumer research.

Table 3. Selected studies for customer side of marketing

Author	Year	Topic	Summary
Verhoefet al.	2010	Customer Engagement	Customer engagement topic was introduced as a new perspective in this study.
Scheibehenne et al.	2010	Choice Overload	Choice overload hypothesis which state that having many choices would lead to negative results, was studied in a meta-analysis methodology.
Morin	2011	Neuromarketing	Neuromarketing topic was introduced and discussed as an emerging field.
Alba and Williams	2013	Hedonic Consumption	The concept of hedonic consumption within the 30 year period had been studied.
Wang et al.	2015	Mobile Shopping	The effect of mobile shopping to customer purchase behaviour was studied and details of orders discussed.
Scaraboto	2015	Hybrid Economy	Sharing, gift-giving and other exchange types of consumption were examined.
Lemon and Verhoef	2016	Customer Experience	Customer experience and customer journey topics were studied.
Eşkisu	2017	Facebook Usage and Personality Traits	They examined facebook usage with narcissism, self-esteem and Big Five variables. They found relation between big five factors and facebook usage.

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Consumer research, which is one of the current marketing issues, represents an area that is mainly influenced by all other variables. In this regard, consumer research will also be important in the coming period. In this regard, the main questions for future work are as follows:

- How will consumer behavior change with new technologies such as wearable devices?
- How will main concepts like consumer loyalty, consumer engagement etc. evolve in time?
- How will be reflections of utilitarian and hedonic consumption on consumer behaviour in future?

In the current issues of marketing, technology, social networks and consumers will be followed by brand side of marketing issues. Brand side of issues mostly depends on "company" side of marketing which is mostly related to marketing management function.

BRAND SIDE OF MARKETING

Current issues in the marketing environment; After the technology, social networks and consumer issues, the brand that represents the "business" part of the marketing is the last side of changes in this study. The changes in the brand part are driven by changes on the consumer side; they are listed in the context of the consumer-brand relationship, rather than in the subject headings.

The applications of brands on social media is the first case of brand side of marketing issues. Kwon & Sung (2011) studied Twitter use of 44 global brands in their study. This study had useful conclusions about brands and their usage of Twitter. By employing content analysis method, it was founded that brands were trying to be like "human" by using prononuns, imperative verb forms and human representatives. Likewise, Hettche et al. (2015) studied usage of Facebook by global brands. According to results, global brands were using social media actively and averagely 3 messages per week were shared. For the contents, photos preferred as media type, interaction-focused content was preferred as content orientation. Gensler et al. (2013) examined social media by brands and management point. According to study, consumers were central authors for brand stories. This situation mostly related to social media and new dynamic network structure. As a result of consumer centrality, firms must care consumer generated brand stories.

The reaction of consumer to brand is another issue in brand studies. Schivinski and Dabrowski (2016) studied user generated content and firm generated content together to analyze their effects on brand equity, brand attitude and purchase intention. According to results, both content types affected purchase intention. But user generated content had affected brand equity and brand attitude, while firm generated content only affected brand attitude.

The interaction with brands on social media is also important. For example liking of a brand on social media is one of the important starting points for consumer/brand relationship researches in marketing studies. John et al. (2016) studied brand-consumer relationship in social media context with "like" action of consumers to a brand on Facebook. They found that brand attitudes and intention to purchase are predicted by preexisting fondness between consumer and brand. These variables were not different for time and presence of "like". Labrecque (2014) examined brand-consumer relationship in social media context and used parasocial interaction theory to explain the relationship. Parasocial interaction theory was antecedent to loyalty intentions and willingness to provide information, while it was consequence to perceived interactivity and openness.Azar et al.(2016)used uses and gratification theory to study consumer motivations for interaction with brand on Facebook.Five motivations were included; search

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for information, entertainment, trust, reward and social influence. They also clustered consumers into four groups; brand companions, brand detached, brand profiteers and brand reliants.

The use of brand and brand related concepts as reflection of identity/self of consumer is another case in brand researches. Hollenbeck and Kaikati (2012) examined this subject by facebook context in their study. They employed multi-method approach and found that consumer expressed their both actual and ideal selves on Facebook. Chernev et al. (2011) implemented five empirical studies about customers' self-expression about brands.

Beyond main research themes in brand studies, there are also some significant brand concepts in recent years. Table 4 contains selected studies about these brand concepts.

Following the consumer side-based grouping of brand studies and various selected studies, some questions for future work are as follows.

- Which areas of the consumer response to branding in the coming years will be intense?
- How would consumer-brand relationships change with the differentiation and spread of technological devices?
- How would main brand concepts like brand loyalty, brand engagement evolve in next years?

SOLUTIONS AND RECOMMENDATIONS

This study examined current marketing issues in four different areas. In addition to general information about the topics, selected studies were given, followed by sample questions about each topic. These questions could help managers about marketing decision making.

FUTURE RESEARCH DIRECTIONS

The first limit of this study is that it has a content-limited space, although the scope of the subject is quite broad. A review of the existing marketing issues has been made, but no further details have been added to the study. Second limit of this study relates to methodology of the study. Using of bibliographic

Table 4. Selected Studies for Brand Side of Marketing

Author	Date	Topic	Summary
Bergkvist and Bech-Larsen	2010	Brand Love	Consequences and antecedents of brand love topic were studied.
Stokburger-Sauer	2010	Brand Community	They examined brand community concept with variables like brand community integration, consumer-brand identification, satisfaction to brand, loyalty to brand and promoting brand.
Iglesiaset al.	2011	Brand Loyalty	Brand loyalty concept was studied with brand experience and affective commitment topics. According to results brand loyalty was affected by brand experience and affective commitment had a mediator effect.
Hollebeek	2011	Customer Brand Engagement	Customer engagement was studied with loyalty nexus. A conceptual model regarding to customer brand engagement was proposed.
Laroche et al.	2013	Brand Loyalty	They studied brand loyalty concept with social media. They mentioned the effects of brand communities on social media, to customer and company/product/brand/other customers relationships.

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analysis, content analysis or other techniques would be useful for researching concepts. With broadness of the content scope, descriptive methodology with general perspective are used in this study.

For future directions to new researches, using more specific scope would be better. For example examining digital marketing and it effects to only customer, technology and it effects to social media, customer and it effects to brand. With this specific scope, it will be possible to examine in more detail the subdivisions of the subjects studied and the developments that took place.

Second suggestion for future research relates to methodology. Using different methods could help new researches to getting new/different results. For example using content analysis, text mining, topic modelling etc. methods would be helpful.

Last suggestion for new researches mostly refers to innovative thinking and marketing management side. Having an integrated perspective about contemporary issues will help to understand them clearly. This would help managers to determine road maps for innovation and managerial thinking.

CONCLUSION

The current issues of marketing in this study are divided into four basic categories. Under each category, concepts related to the categories are given, followed by for selected studies and possible questions for future studies.

The main implication of the work as a result is that the current issues of marketing are not considered alone. Each category that is included in the study and contains the current issues of marketing is in interaction with another category. For example, a marketing study involving technology may involve consumers or brands. A marketing work involving social media can refer to the consumer or technology side. Therefore, it is important to consider concepts together in terms of marketing management. According to Kumar (2018), technology has been used by business for delivering superlative offerings, but this is not enough for today's competitive environment. Customers want memorable experiences and engagement. So technology and business environment meet to fulfill customer needs.Although current issues in the market are handled in four different branches in this study, it is not necessary to distinguish these four branches from each other with distinct lines in the research. In terms of today's dynamics, it is possible for factors to influence consumer behavior at the same time. For example in Ludwig et al. (2013)'s study, content style, online review and conversion rates topics together. They used text mining technique to work with customer book reviews. They also used panel data model and discussed affective content effect on conversion rate. In another study Tucker (2014) examined personalized advertising and privacy concerns in social network context. In that study, consumer behaviour and social network sides were studied together.

In detailed perspective, technology side is important side for marketing issues and will be same in future too. It is the "influencer" side of marketing issues which means that any change or advancements in technology would convert to a "chain" effect which reflects customer or brands. This determinant role of technology is important for marketing management and decision making.

Social media/social network side refers to "platform" side of marketing issues which means technology and customer/brand sides meet in this side and interacting.Characteristics of channels, customers and brands would continue to be discussed in future.

Consumer side of marketing issues refer to people side of marketing. General aim of marketing studies relates to consumer and all of other issues trying to improve this side. As natural consequence of this

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situation, regardless of the fundamental concept (technology/social media or brand), focus of studies would be on consumer again.

Brand side of marketing issues refer to business side of marketing. It is “influenced” and “influencer” roles sametime. It is infleunced because of technology/social media and consumer, but it is also infleuncer because of starting role in brand-consumer relationships. Marketing management would make use of this side in future.

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KEY TERMS AND DEFINITIONS

Consumer: The people/buyer side of marketing activities which could be defined as the main focus of marketing.

Marketing Environment: It refers to the environment consists of internal and external factors and actors.

Marketing Management: The management activity of actions related to marketing related activities.

Social Media: The websites which can people interact to each other.

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Chapter 3
Attitude and Purchase Intention Towards Smartwatches:
An Empirical Research on the Innovative Wearable Technology Field

Bilge Altuntaş
Istanbul Medipol University, Turkey

Ayşen Akyüz
Istanbul Medipol University, Turkey

ABSTRACT

As the marketing world tries to reach mobile users, a wearable technology market has emerged. This market would lead the digital marketing world to major innovation investments and entail companies to develop and improve marketing strategies in the area. The great breakthrough and development in the wearable technology industry allows marketing professionals to conduct more research on the subject. This chapter explores users' attitudes and purchase intention towards one of the most popular wearable devices, smartwatches. Two hundred surveys were taken into analyses which were collected between the dates of 1st and 2nd of June, 2018. Regression analysis, correlations analysis, t-test were conducted to test the hypotheses. While some independent variables such as hedonic values found to be the affecting the purchase intention; variables such as aesthetic appeal is found to have no influence on it.

INTRODUCTION

The wearable technologies have been a hot topic of discussion among marketers for some time now. Especially the development of technology in the field of health is thought to affect the use of the technology in everyday life.

Wearable technologies can be called as futuristic technologies. Most of the existing work on smart wearable devices is for exploration purposes. One of the most remarkable and most important tools of the wearable technology market is smartwatch technology. With the help of these watches, users can

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follow sports activities, access personal health reports instantly, and get notifications via synchronizing the devices with their mobile phones.

When studies on smartwatches are viewed, it is seen that hedonic value and aesthetic design are influential on the usage of the devices as well as how much users have adopted the technology and develop a strong attitude towards technology. In addition, it is suggested that articles written about wearable technologies should be studied in a conceptual framework in order to develop a good understanding on the reasons of the preferences of the device.

In this study, literature search on wearable technology, especially smartwatches, has been done comprehensively. Attitudes toward technology acceptance and technology, and variables related to hedonic value and aesthetic appeal were examined. Consumers' attitudes towards smartwatches and their intention to buy are measured by an empirical research. Very little research has been done on users' attitude and purchase intention towards these devices in Turkey. Therefore the authors believe that this study will make a good contribution to the newly developing literature.

WEARABLE TECHNOLOGIES AND SMARTWATCHES

Wearable technology is in everywhere and everyday life. Experiments on wearables have been conducted since the early 1980s (Mann, 1996). Wearable technology broadens the mobile concept which can appear on any gadget, in several format. It can be defined as a computer that is always on and always accessible (Mann, 1998). They are devices that can be worn by individuals that includes the ability to track information related to the user (Sandall, 2016).

Wearable technologies with functionality and time-saving features, make life easier and become an important part of our lives. Hearables, smart jewelry, smartwatches, fitness trackers and many other types are the latest entrants in the field of electronic devices. These devices not just perform the basic activities of mobile devices or computers, they also measure the heart rate or simply remind the user of the time to drink a glass of water. In this study the authors focus on one of the most popular device among wearable technologies, smartwatches.

Smartwatch, identified as the next big thing in the mobile device industry (Tehrani and Michael, 2014), is not only a device that tells time, but also a all-purpose computer with an array of sensors (Rawassizadeh et al., 2015). Smartwatch technology as wearable technologies are interesting technologies to be explored since they allow for the continual and rational collection of data (Rawassizadeh et al., 2015) and especially the enhancement of individual capabilities (Starner, 2001). According to Yeong et al. (2017), a smartwatch has the power to help individuals' daily lives since it consummates the smartphones by providing convenient information access as providing the users to check notifications promptly. It is wearable or body-worn device and this is its biggest difference from conventional mobile devices such as tablets. If the user wears it, he gets the full benefit of it, otherwise no benefits would be reaped.

According to Statista report, smartwatches sales dramatically increased worldwide over the past years. It is seen that in 2004, the sales unit were 5 million while in 2017, 75 million unit smartwatches have been solved globally and in 2018, sales of smartwatches are forecast to reach 141 million units (Statista Report, 2018). In Turkey, the smarthwatches sales accounted for 13.2 million dollars in 2016 (GFK Report, 2017).

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ATTITUDE TOWARDS TECHNOLOGY

Attitude has been defined as “a learned predisposition to respond in a consistently favorable manner with respect to a given object” (Fishbein and Ajzen, 1975, p. 6). Consumers hold attitudes towards different objects such as individuals, brands or advertisements. Since they represent feelings (both positive and negative) and behavioral tendencies, attitudes are important to marketers (Belch and Belch, 2012). There are many theories about attitude towards technology. Those models are the Theory Reasoned Action (Ajzen & Fishbein, 1980), the Technology Acceptance Model (Davis, 1989) and the Theory Planned Behavior (Schifter & Ajzen, 1985). These theories have included attitude variable as a clear antecedent of the behavior and as the final decisions of the individuals. In addition, they consider that the attitude variable leads to understand the facts which confirm consumer behavior. These models (Shih, 2004; Van der Heijden, 2003; Venkatesh & Davis, 1996; Venkatesh, Speier, & Morris, 2002; Y. S. Wang, Wang, Lin, & Tang, 2003; J.-H. Wu & Wang, 2005) have empirical evidences. On the other hand they demonstrate the utility of the attitude as the basis of the behavior and the intentions to use a particular technology (Y. S. Wang et al., 2003).

In previous studies, a positive relation was found between low usage of technologies and negative attitudes toward technology (Brod, 1982). Some researchers believe that low usage level of technology contributed to the lower levels of productivity with negative technology attitudes. On the other hand, positive attitudes toward technology have been shown to end up in raised new technology usage (Rafaeli, 1986; Zoltan & Chapanis, 1982).

Negative attitudes toward information and communication technologies may be due to the lack of tangible experiences with the positive opportunities offered by information and communication technology solutions (Loh, Flicker, & Horner, 2009). On the contrary, positive attitude and user acceptance are significant factors that affect information and communication implementations in positive direction (Stricklin & Struk, 2003; Venkatesh et al., 2003). New technology adoption is an important action in the integration process, while an essential factor in successful adoption and usage is users’ acceptance which ultimately would be affected by the attitudes consumers hold (Dillon, Blankenship, & Crews, 2005; Tubaishat, 2014).

Technology Acceptance Model (TAM) was originally proposed for information technology (Venkatesh, Thong, & Xu, 2012) is presumably one of the most broadly cited model in the field of technology acceptance (Kranz & Picot, 2012; Park, Kim, & Kim, 2014; P. F. Wu, 2009) and it is derived from Theory of Reason/Action Model. Technology Acceptance Model has also been used to determine the motivations of customers to accept a new technology (Gao & Bai, 2014), is considered as one of the most important models applied to clarify how consumers adopt different technologies (Hargreavesn, Nye, & Burgess, 2010)

With new technologies, it has become harder to foresee consumers’ behaviors. Adoption of new technologies is thoroughly altering the nature of today’s services/products (Yoo, Boland, Lyytinen, & Majchrzak, 2012). It can be elucidated that ease of use may not fully explain consumers’ motives (Venkatesh et al., 2012). A growing number of late studies have proposed that additional factors such as habits, enjoyment, motivation and demographics are related with technology acceptance (Hargreavesn et al., 2010; Venkatesh et al., 2012). Individuals’ attitudes toward technology adoption is positively associated with their use of that technology (Porter & Donthu, 2006).

There are some other researches which take age in the center as an influencer of technology use and adoption (M.G. Morris, Venkatesh, & Ackerman, 2005). Studies show that age affects users technology

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acceptance related attitudes and behaviors (Hong, Lui, Hahn, Moon, & Kim, 2013). As the age progresses, attitude toward technology usage was placed in decisions concerning technology adoption. And this adoption changes depending on the gender of the individual. The effect of technology adoption is stronger for men when compared to women (M.G. Morris et al., 2005). Interestingly the effect of subjective norm on technology acceptance was found to be higher with increasing age of the women users although it was not found to be true for men (M.G. Morris et al., 2005). In another study, it has been found that male students are likely to have more confidence in their computer abilities than the female students (Vekiri & Chronaki, 2008). This result is quite consistent across age groups and cultures (Colley & Comber, 2003; Imhof, Vollmeyer, & Beierlein, 2007; Shashaani, 1997). It is crucial to understand the elements that affect the older individuals' acceptance in addition with their adoption of technology to forecast technology usage in general (Mitzner et al., 2010), but in this study, the focus is on university students; in order to understand the attitude towards wearable technology among young people.

HEDONIC VALUE AND AESTHETIC APPEAL

In the late 1900's basic factors such as emotional aspects of consumer behavior became the object of interest for academic researches (Kumar & Kakar, 2017). Consumer research was evolved from cognitive structure to affective structure (Holbrook & Hirschman, 1982). According to Sweeney & Soutar (2001), consumer research evolved to include intrinsic form or aspect so that an object can be valued for its own benefit.

Bettman (1979), stated that researches about decision making process was based on utilitarian perspective of the product and the principle belief was that consumers are only rational problem solvers. Purchasing and usage desire depend on the consumer's motivation towards hedonic and goal-oriented behaviors (L. C. Wang, Baker, Wagner, & Wakefield, 2007). Some researchers discuss that experiential behavior is related with a desire to be entertained, to have fun, and to be deeply involved in the experience (Wolfinbarger & Gilly, 2001). It could be said that the hedonic experience is generally related with the users' concern with amusement and their self-concept (Arnold & Reynolds, 2003). Hedonic consumption can also trigger powerful feelings and individuals who do the shopping with these feelings might expect increased levels of hedonic value (Babin, Darden, & Griffin, 1994).

The experiential view implied the influences of 3 Fs. 3Fs are representing fantasies, feelings and fun which are the hedonic aspects of consumption. (Ogertschnig & Heijden, 2004). Hedonic consumption can be defined as consumption that emphasizes the multi-sensory, fantasy, and emotive aspects of a buyer's experience with goods (Hirschman & Holbrook, 1982). This view suggests that the hedonic consumption's main influencing factor is the unique consumption experience it presents to the users (Hudson & Murray, 1986). It primarily focuses on the explanation of leisure activities, which are substantial since they are acting as motivating as any other pleasing and enjoyable experience in life (Stafford, Stafford, & Schkade, 2004).

On the other side there was an increasing realization that researchers supported the combined "thinking and feeling" aspects of decision making process by suggesting the relevance of both functional and hedonic elements of value gained and obtained by the user from the consumption of the good (Batra & Ahtola, 1991; Venkatesh & Brown, 2001). At the end of these researches a general understanding emerged that a product's rational and hedonic dimensions are in fact distinct and they capture the important dimensions of a good together. The product attributes which provide utilitarian value are "functional

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and goal oriented and generate cognitive response from the user"; the product attributes which provide hedonic value represent "novelty, aesthetics, unexpectedness, pleasure and fun and evoke affective user responses" (Batra & Ahtola, 1991; Bloch, 1995; Dhar & Wertenbroch, 2000; Hardy, 1999; Mano & Oliver, 1993; Strahilevitz & Myers, 1998; R. Veryzer & Veryzer, 1995). From the hedonic well-being view, a well-lived life is "to experience the maximum amount of pleasure, and happiness is the totality of one's hedonic moments" (Ryan & Deci, 2001). Therefore it can be concluded as, fulfilling individual's need for hedonic experiences is essential to enhance well-being (Diener, Oishi, & Lucas, 2002).

Largely, consumers buy goods for both hedonic and utilitarian aspects while they are spending (Babin et al., 1994). A hedonic value results from aesthetic features of a good and creates pleasure, affecting users' choice of product (R. W. Veryzer & Hutchinson, 1998). In accordance with the studies by researchers (Dahl & Hoeffler, 2004; Hoeffler, 2003) early product users who wanted the latest in innovative technology, demonstrated hedonic reasons for buying the products (Chitturi, Raghunathan & Mahajan, 2007). Consumers purchase products not only for how they function, but also for the meaning they represent to them (Levy, 1959). To help explain hedonic phenomena, consumption perspective was developed (Holbrook & Hirschman, 1982). Marketing researchers come to an end that product image is a central focus (Holbrook & Hirschman, 1982). This conclusion encouraged marketing researchers to view products also as subjective symbols. The hedonic consumption perspective uses emotional experiences to describe behavior (Hsu & Lu, 2004; Koufaris, 2002; Li, Chau, & Lou, 2005; van der Heijden, 2004). Customers' hedonic value perceptions can be a crucial factor for determining their behavioral intentions (Dedeoğlu, Balıkçıoğlu, & Küçükergin, 2016; Ryu, Han, & Jang, 2010). The customer also expects "a good experience" or "hedonic" benefit from using a product (McDonald, 1998).

In subsequent works, researchers identified imaginal and emotional experiences as the two main types of hedonic consumption (Cheng-Lu Wang Zhen-Xiong Chen AllanK.K.Chan & Zheng, 2000; Lacher & Mizerski, 1994). Since a product might help individuals in imagining things and events they desire, it can be said that, hedonic consumption is tied to consumers' imaginal experience (Hirschman & Holbrook, 1982).

Studies have revealed that while consumers explicitly state that they look for rational or utilitarian features in a product, their 'true' preference is for the hedonic (Dhar & Wertenbroch, 2000). It is known that users of pleasure-oriented information technologies are not only technology users, but also individuals who consume the products/services for free or for a fee (Koufaris, 2002).

Previous studies have shown that aesthetic appeal is a crucial factor in consumption decision (Wells et al., 1971; Kendall and Sproles, 1986). Kim suggests that smartwatches are viewed not only as time-telling devices, but also as aesthetic items which reflects someone's personality (Kim, 2017). Interacting with an attractive technological device motivates and encourages users to attribute greater value and quality to the content. (Fogg & Tseng, 1999) and Hsiao (2013) in their study found that visual design aesthetics considerably impacts consumers' attitudes towards smartphones. Juhlin et al. (2016), states that there is a need to clarify visual aesthetic experiences in wearable technology design, and particularly the need to consider the increased opportunities for fashion-oriented interaction. Dehghani et al (2018), basing on the prior research state that aesthetic appeal has a positive effect on product acceptance and consumer ascribe greater importance to the features of the device compared to product price or brand image (Tunca and Fueller, 2009; Duffy and Jonassen, 2013; Hsiao, 2017). Hedonic values and aesthetic appeal are thought to be the influencing factors of attitude and purchase intention towards smartwatches.

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HYPOTHESES OF THE STUDY

In the light of the literature review, we developed the hypotheses shown below:

Hypothesis One: There is a positive relationship between technology and a) attitude towards smartwatches, b) purchase intention towards smartwatches.
Hypothesis Two: There is a positive relationship between hedonic value and a) attitude towards smartwatches, b) purchase intention towards smartwatches.
Hypothesis Three: There is a positive relationship between aesthetic appeal and a) attitude towards smartwatches, b) purchase intention towards smartwatches.
Hypotheses Four: Attitude level is significantly different depending upon gender.
Hypothesis Five: Purchase intention level is significantly different depending upon gender.
Hypothesis Six: There is a positive relationship between attitude towards smartwatches and purchase intention towards smartwatches.
Hypothesis Seven: a) Attitude towards technology b) hedonic value c) aesthetic appeal d) attitude towards smartwatches affect purchase intention.

RESEARCH DESIGN

Questionnaire was used in this study in order to collect data. It was prepared as a single form with a total of six sections. During the preparation of the survey questions, care had been taken in terms of being clear and easily understood by respondents. For the convenience in answering the questions and also for the analysis stage, questions were prepared as being in the form of 5-point Likert scale. Participants assessed the appropriateness of the statements due to 5- point Likert scale. The data collection phase of the study was performed between 1st and 2nd of June, 2018. Those participating in the questionnaire was chosen from İstanbul Medipol University students between the ages of 18 and 24. Participants answered the questionnaire via webanketa website where the questionnaire was hosted online. IP protected limitation was used in order to enable participants to complete survey for only once. Within the time specified above, a total of 208 questionnaires were filled but 8 of them were not taken into account because of being incomplete and analyzes were performed on 200 surveys. In the first part of the questionnaire, there were 2 questions regarding the demographics (gender and age). In the second section, 2 questions were asked regarding the attitude towards technology. In the third part there were 2 questions related to hedonic value; fourth section covered 2 questions for aesthetic appeal; Fifth and sixth parts contained 2 questions each regarding the attitude and purchase intention towards the smartwatches. Attitude towards technology questions are adapted from Ardies et.al (2013); questions regarding hedonic value are adapted from Vankatesh, et al. (2012) and aesthetic appeal from Yang, et al. (2016). Attitude and purchase intention towards smartwatches are measured using the scale from Chuah, et al (2016)' s study.

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STATISTICAL ANALYSIS OF THE DATA

For statistical analyses, SPSS 22.0 program is used. Descriptive statistical methods are used such as mean, standard deviation, percentage while assessing the data. In order to detect the relations among variables, Pearson Correlation Analysis; to examine the effect of independent variables on dependent Regression analysis and to make the comparison between two independent groups and show significant differences are t-test are used. Reliability analysis of the scale regarding attitude towards technology, hedonic value and aesthetic appeal, attitude and purchasing intention found to be high with a Cronbach's Alpha=0,917.

FINDINGS

In this section, the findings obtained from the analysis of the data is presented. Explanations and interpretations is made based on the findings.

Distribution of the answers are shown in Table 2.

Table 1. Gender

	Groups	Frequency(n)	Percentage (%)
Gender	Women	120	60,0
	Men	80	40,0
	Total	200	100,0

Table 2. Distribution of the answers to the questionnaire

	Strongly disagree		Disagree		Neither agree nor disagree		Agree		Strongly agree			
	f	%	f	%	f	%	f	%	f	%	Mean	SD
Attitude towards technology												
Technology makes everything work better.	4	2,0	13	6,5	33	16,5	94	47,0	56	28,0	3,920	0,940
Technology is an important part of life.	0	0,0	4	2,0	6	3,0	101	50,5	89	44,5	4,370	0,645
Hedonic value												
Using smartwatch is enjoyable.	6	3,0	24	12,0	83	41,5	60	30,0	27	13,5	3,390	0,966
Using smartwatch is entertaining.	7	3,5	21	10,5	81	40,5	58	29,0	33	16,5	3,440	1,001
Aesthetic appeal												
Smartwatches are aesthetically appealing.	12	6,0	34	17,0	36	18,0	89	44,5	29	14,5	3,440	1,115
Smartwatches look attractive.	11	5,5	36	18,0	39	19,5	80	40,0	34	17,0	3,450	1,133
Attitude towards smartwatches												
Overall, I have a positive attitude towards smartwatches.	5	2,5	17	8,5	55	27,5	91	45,5	32	16,0	3,640	0,935
I like the idea of using smartwatches.	10	5,0	30	15,0	42	21,0	79	39,5	39	19,5	3,530	1,116
Purchase intention towards smart watches												
I intend to buy a smartwatch n future.	14	7,0	36	18,0	52	26,0	67	33,5	31	15,5	3,330	1,147
If I have financial resources to afford a smartwatch; I would purchase one.	22	11,0	44	22,0	55	27,5	49	24,5	30	15,0	3,100	1,225

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Participants agreed highly with the statement “technology makes everything work better” (3,920 ± 0,940) and strongly agreed with the statement “technology is an important part of life” (4,370 ± 0,645). Participants moderately agree the with the statement “using smartwatch is enjoyable” (3,390 ± 0,966); on the other hand highly agree with “using smartwatch is entertaining” (3,440 ± 1,001). About aesthetic appeal, participants highly agree both statements with scores: “smartwatches are aesthetically appealing (3,440 ± 1,115) and smartwatches look attractive (3,450 ± 1,133)” statements regarding attitude towards smartwatches are found to be highly agreed with scores (3,640 ± 0,935) and (3,530 ± 1,116). In other respects statements related to purchase intention are found moderately agreed by participants: “I intend to buy a smartwatch in future” (3,330 ± 1,147), “if I have financial resources to afford a smartwatch; I would purchase one” (3,100 ± 1,225).

As shown in Table 3, participants’ attitude towards technology is found to be high (4,150±0,673); hedonic value level is found to be high (3,418±0,937); aesthetic appeal level is found to be high (3,448±1,089); attitude towards smartwatches is found to be high (3,588±0,975); and finally purchasing intention towards smartwatches is determined as moderate (3,215±1,140.)

There is a weak positive relationship between hedonic value and technology (r=0.434; p=0,000<0.05) and positive weak relationship between aesthetic appeal and technology. (r=0.275; p=0,000<0.05). There is a moderate positive significant relationship between aesthetic appeal and hedonic value (r=0.500;

Table 3. Mean Scores of attitude towards technology, hedonic value, aesthetic appeal, attitude and purchase intention

	N	Mean	SD	Min.	Max.
Attitude towards technology	200	4,150	0,673	2,000	5,000
Hedonic Value	200	3,418	0,937	1,000	5,000
Aesthetic Appeal	200	3,448	1,089	1,000	5,000
Attitude towards smartwatches	200	3,588	0,975	1,000	5,000
Purchase intention towards smartwatches	200	3,215	1,140	1,000	5,000

Table 4. Correlation Analysis

		Attitude towards technology	Hedonic Value	Aesthetic appeal	Attitude towards smartwatches	Purchase intention towards smartwatches
Attitude towards technology	r	1,000				
	p	0,000				
Hedonic value	r	0,434**	1,000			
	p	0,000	0,000			
Aesthetic appeal	r	0,275**	0,500**	1,000		
	p	0,000	0,000	0,000		
Attitude towards smartwatches	r	0,411**	0,764**	0,674**	1,000	
	p	0,000	0,000	0,000	0,000	
Purchase intention towards smarwatches	r	0,413**	0,698**	0,530**	0,775**	1,000
	p	0,000	0,000	0,000	0,000	0,000

*<0,05; **<0,01

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p=0,000<0.05). There is a weak positive correlation between technology and attitude towards smartwatches (r=0.411; p=0,000<0.05) and in the same way, there is a weak positive relationship between technology and purchase intention (r=0.413; p=0,000<0.05). Therefore H1a and H1b are accepted. There exists a strong positive correlation between hedonic value and attitude towards smartwatches (r=0.764; p=0,000<0.05); likewise there is a positive significant relationship between hedonic value and purchase intention towards smartwatches (r=0.698; p=0,000<0.05). We can conclude as H2 a and H2 b are accepted. It has been found out that a moderate positive correlation exist between aesthetic appeal and both with attitude (r=0.674; p=0,000<0.05 and purchase intention towards smartwatches (r=0.53; p=0,000<0.05). Therefore H3a and H3b are accepted. Finally, a strong positive significant relationship exist between attitude and purchase intention towards smartwatches with a score r=0.775; p=0,000<0.05. Accordingly H6 is accepted.

Regression analysis is found to be statistically significant (F=84,142; p=0,000<0.05). As the determinants of purchase intention towards smartwatches, its relationship in terms of explanatory power with attitude level, hedonic and aesthetic appeal are found to be very strong (R2=0,626). Attitude towards technology does not affect purchase intention (p=0.100>0.05). Hedonic value increase purchase intention. (ß=0,283). Aesthetic appeal on the contrary does not affect purchase intention towards smartwatches (p=0.724>0.05). On the other hand, it is found that, attitude towards smartwatches increase purchase intention (ß=0,643). Thus, H7a and H7c are rejected, whereas H7b and H7d are supported.

Hedonic value scores of men are found to be higher ($\bar{x}$=3,738), than women' ($\bar{x}$=3,204) (t(198)=-4,095; p=0,000>0,05). On the other hand, aesthetic appeal scores are not significantly different depending upon gender (t(198)=-1,421; p=0,157>0,05). Men's attitude level scores ($\bar{x}$=3,881), are found to be

Table 5. Regression Analysis

Dependent Variable	Independent Variables	ß	t	p	F	Model (p)	R^2
Purchase intention towards smartwatches	Constant	-0,701	-2,196	0,029	84,142	0,000	0,626
	Attitude towards technology	0,136	1,652	0,100			
	Hedonic value	0,283	3,390	0,001			
	Aesthetic appeal	0,022	0,354	0,724			
	Attitude towards smartwatches	0,643	6,938	0,000			

Table 6. Scores of Hedonic value, aesthetic appeal, attitude and purchase intention towards smartwatches in terms of gender

	Group	N	Mean	SD	t	p
Hedonic value	Women	120	3,204	0,787	-4,095	0,000
	Men	80	3,738	1,052		
Aesthetic appeal	Women	120	3,358	1,021	-1,421	0,157
	Men	80	3,581	1,179		
Attitude towards smartwatches	Women	120	3,392	0,851	-3,580	0,000
	Men	80	3,881	1,077		
Purchase intention towards smartwatches	Women	120	2,979	1,032	-3,694	0,000
	Men	80	3,569	1,208		

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higher than women's ($\bar{x}$=3,392) (t(198)=-3,580; p=0,000>0,05). In the same way, men's purchase intention scores ($\bar{x}$=3,569), are found to be higher than women' ($\bar{x}$=2,979) (t(198)=-3,694; p=0,000>0,05). Therefore, H4 and H5 are accepted.

SOLUTIONS AND RECOMMENDATIONS

This study is of great importance for companies which markets wearable devices, in particular smartwatches. With the help of this study, companies can predict future market trends related to wearable technology and will understand the overall attitude towards smartwatches and reasons for buying these devices. This study is also expected to benefit research & development departments and marketing practices of technology companies. As shown in the results of the analysis, attitude towards smartwatches and hedonic values related to smartwatches are found to be the determinants of purchase intention.

FUTURE RESEARCH DIRECTIONS

As any study, the present research is constrained by limitations that offer venues for future research. Due to the time restraint, only 200 questionnaires have been collected and taken into account. In the future studies, it would be suggested to perform the research on a greater number of respondents. Potential studies may include a sample with different demographics such as adults or individuals with certain income. In addition, future studies might include other variables that might be thought to be affecting purchase intention and attitude towards smartwatches.

CONCLUSION

Wearable technologies have become a very important part of our lives with their functionality, and usability features. Wearable technologies that are available in sports, health and social areas present many functions ranging from, reminding users their meeting schedules to measuring heart rate; or from getting the latest notifications to counting steps. This research focuses on smartwatches, which is one of the most popular and widely used wearable technology device. It has been observed that very few researches and studies have been conducted in Turkey on the relevant topic. The authors are of the opinion that examining the developments and present situation in the sector will be of great importance for the literature contribution.

This study aims to determine the attitude and purchase intention towards smartwatches. In this respect, three variables have been identified. These are attitudes towards technology, hedonic values and aesthetic appeal. Hypotheses are formed following the literature review and they are tested by regression analysis, correlation analysis, t-test. Consequently, it has been found out that there is a positive relationship between attitude towards technology and both with attitude and purchase intention towards smartwatches. Again, there is a positive relationship between hedonic value and both with attitude towards smartwatches and purchase intention towards smartwatches. It has been found out that there is a positive relationship between aesthetic appeal and both with attitude towards smartwatches and purchase

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intention towards smartwatches. Attitude towards smartwatches and purchase intention are also found to be positively correlated. t-test was used to find out if there is a difference in attitude levels depending upon gender; the result was occurred to be significant. About the purchase intention, the authors observe that, attitude towards smartwatches and hedonic value have an impact on purchase intention; whereas attitude towards technology and aesthetic appeal do not affect purchase intention.

Though the area of wearable technology is still in the beginning phase, it is growing expeditiously and give impetus to the market with favorable outcome. Therefore current study is expected to make good contributions to the current literature and help to develop a better understanding of the market.

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KEY TERMS AND DEFINITIONS

Attitude: A learned predisposition to respond favorably or unfavorably towards an object.

Smartwatch: A portable computable device that can be worn on wrist.

TAM: Technology acceptance model.

Wearable Technology: Technological devices that can be worn by consumers such as smartwatch, smart ring, or smart glasses.

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Chapter 4
Economic Effects in Islamic Stock Development of the European Countries:
Policy Recommendations for Ethical Behaviors

Hasan Dinçer
Istanbul Medipol University, Turkey

Serhat Yüksel
Istanbul Medipol University, Turkey

Zafer Adalı
Artvin Çoruh University, Turkey

ABSTRACT

The purpose of this chapter is to understand whether economic growth and inflation rate have an effect on the development of Islamic stock market. Within this context, quarterly data of 13 European countries for the periods between 2002:2 and 2016:3 are analyzed with Dumitrescu Hurlin panel causality test. It is concluded that inflation rate and economic growth have a significant effect on the development of Islamic stock market. Because economic growth affects private investment in the country, it has an important impact on the development of Islamic stock exchange. Additionally, inflation rate is accepted as the main cause of Islamic stock market development because it increases uncertainty in the market. Hence, it can be said that countries should focus on the policies to decrease high inflation rates and increase economic growth. With the help of these kind of actions, it will be possible to improve Islamic stock market in the country. Because companies, which are included in Islamic stock market, have to obey ethical rules, it will improve the performance of the economies as well.

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INTRODUCTION

Stock exchange refers to the place where marketable securities can be traded according to legal rules (Kraus and Stoll, 1972). As it can be understood from this definition, it plays a very significant role for the economies of the countries. First of all, companies can reach the resources they need much easily with the help of stock exchange (Galaz et. al., 2015). Owing to this situation, it helps to increase private investment in a country. In addition to this aspect, investors can have a dividend income for the stocks they purchased (Narayan and Ahmed, 2014). As a result, it can be said that stock exchange contributes the economic development of a country (Levine and Zervos, 1998).

Because of the aspects emphasized above, it can be seen that stock exchange development should be provided for economic stability (Panetta, 2002). Within this scope, stock exchange index is considered an important indicator that shows the performance of stock exchange. It calculates the price movements of the stocks in the market as a whole (Laboissiere et. al., 2015). When this index increases, it means that the trade volume in this market goes up as well. This information will attract new investors to come into the stock market. The main reason is that investors generally follow the values of stock exchange indexes in order to have a view of the general performance of the stock exchange.

It was accepted that there are some macroeconomic factors that affect the performance of stock exchange. First of all, there is a negative relationship between interest rate and stock exchange value since higher interest rates have a decreasing effect on the investment of the companies (Andries et. al., 2014). Moreover, exchange rate volatility also causes decreases in the value of stock exchange because investors do not prefer to make investment in such a risky environment (Chkili and Nguyen, 2014). Additionally, current account deficit, unemployment and political instability are other problems that affect stock exchange volume negatively due to the similar reason (Akbalık and Özkan, 2017), (García-Izquierdo et. al., 2015).

Furthermore, inflation and economic growth are also very significant factors that have an important impact on the development of stock exchange. Higher inflation rate leads to increase in input prices. Because it affects the investment of the companies negatively, it can be said that it has a decreasing effect on stock exchange value (Iqbal, 2017). In addition to the inflation rate, economic growth plays a critical role with respect to the performance of stock exchange market. Because economic growth shows the improvement in the economy, it has a positive relationship with stock exchange development (Ngare et. al., 2014).

Islamic stock exchange is a new topic in the literature that has an increasing popularity. It contains the stocks of the companies whose operations are not against with Islamic rules (Sakti and Harun, 2015). In other words, the companies that trades related to gambling, alcohol, interest and pork products cannot be included in this stock exchange. Therefore, it can be said that Islamic stock exchange has an important power to attract the attention of the investors that give importance to the religious rules. Furthermore, this index also provides a suitable and effective investment environment to non-Muslim investors (Hussin et. al., 2012), (Karim et. al., 2012).

Business ethic refers to the rules and policies which regulate the financial market (Yizheng, 2005). Therefore, it can be said that it is also an essential topic for the stability of financial markets because it provides security in this market (Hawley, 1991). Since investors prefer to make investment to the market they can trust, business ethic rules have a positive impact on economic development of the country. Otherwise, investors will be reluctant to increase their investments, and this leads to financial problems for this country (Abdul Rahman et. al., 2010), (el Alaoui et. al., 2015).

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Islamic stock market includes the companies which have to obey the rules of Islamic religion. Because Islam strongly prohibits the unethical behavior in the business operations, these companies should follow the ethical rules in order to continue to take place in Islamic stock market (Ajmi et. al., 2014). Since Islam prohibits speculation, improving Islamic stock market in a country plays a key role to improve the economy as well (Gupta et. al., 2014). Thus, it can be said that the studies, which analyze the way of improving Islamic stock market, are very important in the literature (Rizvi et. al., 2014), (Al-Khazali et. al., 2014).

The aim of the study is to define relationship between Islamic stock exchange with economic growth and inflation rate. In order to reach this objective, quarterly data of 13 European countries for the periods between 2002:2 and 2016:3 will be examined by Dumitrescu Hurlin causality analysis. This analysis will be helpful to develop suggestions to increase the volume Islamic stock market in these countries. Hence, this study contributes to both academic literature and market experts by focusing on a significant subject.

LITERATURE REVIEW

Stock exchange development is such a very popular subject in the literature. Some of the studies were demonstrated on Table 1.

As it can be understood from Table 1, there are some studies which focused on the relationship between stock market prices and foreign exchange rates. Osisanwo and Atanda (2012) made a study in

Table 1. Similar studies in the literature

Author	Scope	Method	Result
Grossman and Shiller (1980)	US	Descriptive Statistics	They reached a conclusion that volatility in interest rates affects stock price variability.
Mukherjee and Naka (1995)	Japan	VECM	Industrial production has an effect on stock prices.
Errunza and Hogan (1998)	8 Different Countries	VAR	They defined that industrial production is important factor for stock market development.
Cheung and Lilian (1998)	Canada, Germany, Italy, Japan and US	Johansen Co-integration Analysis	They concluded that the main determinants of stock prices are oil price, consumption and economic growth.
Ahmed (1999)	Bangladesh	Granger Causality Analysis	It was identified that there is a relationship between stock prices and economic growth.
Kwon and Shin (1999)	Korea	VECM	Foreign exchanges rates have a strong effect on stock prices.
Garcia and Liu (1999)	15 Different Countries	Regression	Saving rate and real income are the determinants of stock market development.
Maysami and Koh (2000)	Singapore	VECM	It was defined that interest rate and exchange influence stock market.
Beck and Levine (2004)	40 Different Countries	Regression	It was identified that stock market development are influenced by volume of the banking sector and economic growth.
Kim and Moshirian (2005)	17 Different Countries	EGARCH	It was determined that stability in the economy is a significant factor of stock market development.
Chakravarty (2005)	India	Granger Causality Analysis	It was defined that industrial production and are the main cause of stock price.
Walti (2005)	15 Industrialized Countries	Descriptive Statistics	The volume of trade increases stock market.
Naceur et. al. (2007)	12 MENA Countries	Regression	Economic stability has a positive effect on stock market development.
Yartey (2008)	42 Emerging Economies	Regression	It was found that private capital flows, economic growth and banking sector development have strong influence on stock market development.
Apergis and Miller (2009)	8Different Countries	VAR	It was determined that stock market returns are not associated with oil market shocks.

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Table 1. Continued

Author	Scope	Method	Result
Gençtürk (2009)	Turkey	Regression	It was defined that inflation rate has an impact on stock market.
Rahman et. al. (2009)	Malaysia	VAR	It was concluded that interest rate, exchange rate, reserves and industrial production index are the main determinants of stock market development.
Shabri and Yusof (2009)	Malaysia	ARDL	It was concluded that there is a relationship between interest rate and Islamic stock price.
Asmy et. al. (2009)	Malaysia	VECM	It was identified that there is a relationship between stock prices and inflation rate.
Zügül and Sahin (2009)	Turkey	Regression	There is a positive relationship between stock market index and inflation rates.
Imran et. al. (2010)	Pakistan	Johansen Co-integration Analysis	It was concluded that there is long run relationship between industrial production and stock market prices.
Masila (2010)	Nairobi	Regression	Political risk has a significant effect on stock market development.
Cherif and Gazdar (2010)	MENA Countries	Regression	It was defined that economic growth plays a major role in stock market performance.
Maku and Atanda (2010)	Nigeria	Engle-Granger Co-integration Analysis	Inflation and exchange rate volatility reduces stock market performance.
Eita (2011)	Namibia	VECM	It was identified interest and inflation rates decrease stock market price.
Sayılgan and Süslü (2011)	Emerging Countries	Regression	It was identified that exchange rate and inflation affect stock market returns but interest rate, GDP growth and oil price do not.
Rooij et. al. (2011)	Netherlands	GMM	Financial literacy is the main determinant of stock market.
Altıntaş and Tombak (2011)	Turkey	VAR	They concluded that economic growth, real exchange rate and international reserves are associated with stock prices.
Albayrak et. al. (2012)	Turkey	Regression	It was determined that gold price and exchange rate have important effect on stock market.
Asongu (2012)	Sub-Saharan Countries	GMM	It was determined that the quality of the firms has an important effect on stock market development.
Osisanwo and Atanda (2012)	Nigeria	Regression	It was determined that exchange rate has an effect on stock market development.
Yüksel and Yüksel (2013)	7 Different Countries	Johansen Co-integration Analysis	It was defined that there is a relationship between inflation rate and stock price index.
Aktaş and Akdağ (2013)	Turkey	Granger Causality Analysis	It was concluded that interest rate, inflation and exchange rate have impacts on the stock market development.
Zafar (2013)	Pakistan	Regression	It was concluded that the banking sector development does not impact on stock market performance whereas FDI and real interest rate have significant effect.
Hwang et.al.(2013)	US and Emerging Countries	MGARCH	They determined that foreign investment, and the exchange market volatility have relationship with stock market development.
Shrestha and Subedi (2014)	Nepal	Regression	It was concluded that there is a negative relationship between interest rate and the performance of stock market.
Ouma and Muriu (2014)	Kenya	Regression	They determined that exchange rates and inflation affect the stock market.
Kirui et. al. (2014)	Kenya	TGARCH	It was understood that there is a significant relationship with exchange rate volatility and stock returns.
Degiannakis (2014)	EU	VAR	It was concluded that oil price shocks have a significant power on stock prices.
Azam and Stefanescu(2014)	Romania	Johansen Co-integration Analysis	It was defined that FDI has a positive effect on stock market performance.
Sakti and Harun (2015)	Indonesia	VAR	They identified that Islamic stock market development is influenced by the volatility in exchange rate and inflation rate negatively.
Zhou et. al. (2015)	Cameroon	Regression	They determined that economic growth and banking sector influence stock market prices.
Lehkonen and Heimonen (2015)	49 Emerging Countries	GMM	It was understood that political risk has an effect on stock market returns.
Solarin and Sahu(2015)	36 Different Countries	GMM	It was defined that military spending has a negative and significant effect on stock market performance.
Babajide et. al. (2016)	Nigeria	EGARCH	They emphasized that there is a relationship between stock prices with interest rate and economic growth.
Korhonen and Peresetsk (2016)	Emerging Countries	TGARCH	It was identified that there is a relationship between oil prices and stock market development.
Arouri and Roubaud (2016)	China, India and the USA	Regression	It was defined that political uncertainty reduces stock returns.
Jamaludin et. al.(2017)	ASEAN Countries	Regression	They reached a conclusion that higher inflation rate is inversely related to the stock market returns.

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order to analyze the determinants of stock market development in Nigeria. According to the results of the regression analysis, it was determined that exchange rate is the main factor that affects stock market prices. Sayılgan and Süslü (2011), Albayrak et. al. (2012) and Ouma and Muriu (2014) also reached the similar results by using the same method. Moreover, Kwon and Shin (1999), Maysami and Koh (2000), Rahman et. al. (2009), Maku and Atanda (2010), Altıntaş and Tombak (2011), Aktaş and Akdağ (2013), Hwang et. al. (2013), Kirui et. al. (2014) and Sakti and Harun (2015) underlined the same conclusion with the help of a different methodology.

Furthermore, it can also be seen that there are some studies which stated the relationship between inflation and stock market prices. Asmy et. al. (2009) tried to analyze the determinants of stock market development in Malaysia. As a result of vector error correction method, it was identified that inflation rate affects stock market prices. Eita (2011) concluded the similar situation with the help of the same method. On the other side, Zügül and Sahin (2009), Maku and Atanda (2010), Sayılgan and Süslü (2011), Yüksel and Yüksel (2013), Aktaş and Akdağ (2013), Ouma and Muriu (2014), Sakti and Harun (2015) and Jamaludin et. al. (2017) identified the similar issue with the help of a different method.

In addition to these studies, the relationship between interest rates and stock market prices was also emphasized in some studies. Shrestha and Subedi (2014) made a study so as to understand the determinants of stock exchange performance in Nepal. As a result of the regression analysis, it was defined that interest rate affects stock market development. Zafar (2013) also underlined this conclusion by using the same method. Furthermore, Maysami and Koh (2000) and Eita (2011) reached the same results with the help of vector error correction method. On the other side, Sayılgan and Süslü (2011) determined that interest rate do not effect stock market development.

Morever, it was also seen that economic growth is an important factor of stock market prices in many different studies. Cheung and Lilian (1998) tried to analyze the influencing factors of stock market development in 5 different developed countries. By using Johansen co-integration analysis, it was identified that economic growth is the main determinant of the performance of the stock market. Additionally, Beck and Levine (2004), Yartey (2008), Cherif and Gazdar (2010) and Zhou et. al. (2015) also concluded that economic influences stock market prices with the help of the regression analysis. However, Sayılgan and Süslü (2011) defined that there is not a relationship between economic growth and stock exchange prices.

Additionally, it was also seen that some other studies focused on the relationship between industrial production and stock market performance. Chakravarty (2005) made a study to understand the factors that affect stock market price in India. As a result of Granger causality analysis, it was determined that industrial production is the main cause of stock price. Moreover, Mukherjee and Naka (1995), Kwon and Shin (1999), Errunza and Hogan (1998) and Imran et. al. (2010) used different method and reached the same conclusion in their studies.

As it can be seen from Table 1, there are lots of studies that analyzed the determinants of stock market prices. Moreover, it was defined that some different methods were used in these studies, such as regression, Granger causality analysis, vector error correction method and Johansen cointegration analysis. Nevertheless, it was identified that only Shabri and Yusof (2009) and Sakti and Harun (2015) focused on the influencing factors of Islamic stock exchange. It was also seen that these studies considered only one country. Due to this condition, it can be said that there is a need for a study that will analyze the determinants of Islamic stock in various countries.

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THE IMPORTANCE OF ETHICAL BEHAVIOR IN FINANCE

Ethical Behavior in Finance

Ethical rules have an importance place to put the life in order because they regulate the behaviors of the people (Lewis, 1985). Additionally, business ethic includes some rules which are related to the behaviors of the parties in trade. For example, companies should consider environmental factors while making business with others. Another important issue for this situation is that companies help other parties although it has an important cost for these companies (Donaldson and Dunfee, 1994).

Social responsibility refers to the actions which are helpful to the other parties (Lindgreen and Swaen, 2010). Because there are lots of people that need help, social responsibility activities play a key role so as to increase the life quality of the people (Carroll, 1991), (McWilliams and Siegel, 2001). On the other side, when these activities are performed by the companies, it is called as corporate social responsibility. While joining corporate social responsibility activities, companies have a chance to increase the image on the eyes of the customers (Yüksel and Özsarı, 2017).

Ethic plays a very significant role in the stability of financial markets (Dobson, 1997). The main reason behind this condition is that ethical rules are very helpful for investors to feel themselves secured. If there is no trust in this market, investors will not make investment and this condition will have a negative effect on economic development of the countries. As a result, government should give assurance to the investors about the security of ethical rules in the market (Ryan et. al., 2010), (Horrigan, 1987), (Davis et. al., 2013).

One of the hallmarks of capitalism is the financial or economic crisis. With respect to historical perspective, the 2008 global financial crisis has been considered as the most devastating crisis after the Great Depression (Frankel and Saravelos, 2012). Addition to many theoretical approaches, unethical financial behavior can be accepted as one of the most notorious culprits. This unethical behavior produced by neoliberalism view allowed financial institutions to greedy engage in sub-prime mortgages. This wrongful behavior has been gradually established and mainly based on the Enlightenment process and individualism (Moore, 2001). Additionally, within this context, firstly orthodox theoretical approach will be tried to examine, later ethical approach will be tried to clarify. Since ethical form plays an important in the strong market, this view dramatically contributes to implementing policy in order to prevent the financial or economic crisis like the recent one (De Pee et. al., 2010).

The end of the Bretton Woods had a huge impact on financial markets. Before the Bretton Woods, most economics argued that the period of 1948-1977 is accepted as the golden age. In these periods, financial stability and regulated financial markets characterized all financial markets in which higher economic growth, a decrease in inequality and strong markets were experienced in around the world (Marglin and Schor, 1990). The periods of the golden ages emphasized many ethical and economic policies which had the positive impact on the welfare economics but the capitalist economics based on the self-interest motives and the adoption of individualism led to huge barriers impaired the welfare economics (Mobolajii, 2010).

However, Hassan (2009) argued that the global financial crisis is a good example of demolished ethical due to neoliberalism associated with greed and exploitation. Whereas the advantages of regulated financial markets, defined financial ethical norms by government and authorities have been immobilized by finance-led capitalism associated with Neoliberalism. This new idea identified that individualism based

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on self-interest should become advisor and profit motive is represented as the new motto for all economic agents. As a result, public interest and ethical perceptions were beside the point (Bresser-Pereira, 2010).

Theoretically, financialization process consists of liberalizing international capital flow, deregulating the financial sectors, an increase in the freedom of banks in free circulation for financial transactions. With the help of financialization, new financial institutions and new high-leveraged financial products became a center of domestic and international economies which lead to an increase in profits from financial products, an increase in deregulations and changing in rules and attitudes of individuals against ethical norms (Ertürk et. al, 2008; Stockhammer, 2010). All major changes combined with speculative have created artificially financial wealth and the bubble which caused the financial markets to be more vulnerable to crisis (Guttmann, 2008).

Beyond the theoretical view, human nature should be also properly investigated in order to the recent financial crisis because the madness of human nature motivated by Neoliberalism is one of the important determinants of the financial crisis. According to A Treatise of Human Nature composed by David Hume in 1978, all sciences are more or less associated with human nature and there is no exception for economics (Hume, 2000). However, many economists have focused on the human nature mostly related animal spirits since The General Theory of Employment, Interest, and Money published by Keynes in 1939 in order to prevent potential crisis and determine fiscal and monetary policy for higher economic development. According to Keynes, animal spirits result in economic crisis except that instability related to speculation (Keynes, 1936). As a result, the failure or success of the capitalist economy depends on human factors and the attitudes of ethic and morality shaped human factors should be understood by authorities to prevent the crisis like recent one (Aydın, 2011).

However, George Akerlof and Robert Shiller published a book called Animal Spirits after the 2008 global financial crisis in order to underline the effects of human nature on the economy. According to them, without modeling and understanding of human, it is impossible to abelite crisis and defining the policy for smoothing business cycles. Another important viewpoint in Animal Spirits blamed the economics and policymakers because they do not charge of animal spirits or human nature motivated by capitalist ideas based on egoistic and self-interest for the sake of neoliberalism (Akerlof and Shiller, 2009).With respect to the recent global crisis, all economic agents ranging from politicians, market players and entrepreneurs followed their greedy individuals' maximization without any ethical norms and these greedy pleasures made the 2008 global crisis inescapable (Shiller, 2008; Aydin, 2012).

In order to prevent the crisis like the recent one, scholars and policymakers are to examine human nature created by neoliberalism because conventional financial and economic system has been designed in terms of the structure of neoliberalism ideas and ethical form (Crotty, 2009). Indeed, this movement of thought is the product of the Enlightenment which follows the human mind. Whereas the Enlightenment played a vital role in the developing of science and technology, the same idea resulted in destructive technology and immobilizing moral and ethical codes based on the divine. The Enlightenment thinkers especially Immanuel Kant and Adam Smith underlined that human is rational and with the help of release of human mind, any governmental interventions are unnecessary because human following self-interest produces maximum total gain (Murdock, 2011). Having explored the global financial crisis, every economic agent acted as expected by in this direction. The government has deregulated financial sectors in which entrepreneurs maximized their profits without thinking risk menacing public (Reath and Timmermann, 2010; Greider, 2003; Aydın, 2011).

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Table 2. List of European countries

Austria	Belgium	Czech	Denmark	Finland
France	Germany	Hungary	Italy	Netherlands
Poland	Spain	United Kingdom		

Behavior of Institutions in Islamic Finance Index During Global Economic Crisis

It is accepted that the main reason of the global mortgage crisis was started in dot.com crisis which was occurred in 2000. In this period, FED decreased the interest rate at very minimum levels in order to minimize the negative effects of this crisis (Buenstorf and Fornahl, 2009). Low interest rates made easier to use the loans for the people. Hence, it can be seen that there was a significant increase in the amount of mortgage loans in United States. However, an important part of the loans was given to the people which have low credibility (Yüksel, 2017).

High amount of mortgage loans increased the demand for the houses. Owing to this aspect, the prices of the houses in United States went up significantly and this situation gave a chance to the people to use higher amount of mortgage loans. This issue is an important factor that increased the effect of the financial crisis. In addition to this aspect, US banks made securitization of these mortgage loans and purchased them all around the world. Due to this situation, mortgage crisis had contagion effect to the most parts of the world, such as Europe and Asia (Yüksel and Zengin, 2016).

According to the rules of Islamic religion, unethical behaviors are strongly prohibited. Therefore, it is expected that the institutions that give importance to Islam should not take into the part of these kinds of behaviors (Yüksel et. al., 2017). For example, because speculation is not accepted in Islam, these institutions did not use derivatives with speculative purposes during 2008 global mortgage crisis. This situation provided that the institutions, which are included in Islamic finance index, did not have important losses because of this crisis (Chapra, 2011), (Ahmed, 2010), (Smolo and Mirakhor, 2010).

RESEARCH AND APPLICATION

Data Set and Scope

In this study, quarterly data of 13 European countries for the periods between 2002:2 and 2016:3 is considered. The data of economic growth and inflation rate is taken from the website of OECD. Moreover, Islamic stock exchange data is provided from Thomson Reuters. The list of these European countries is demonstrated on Table 2.

Dumitrescu Hurlin Panel Causality Tests

In order to define better policy implication, the casual relation between variables is one of the significant priorities. When considering this concept, the recent conducted studies employ Dumitrescu Hurlin (DH) causality test. Namely, this panel causality test is regarded as an advanced form of Granger causality

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analysis. The main reason behind this situation is that Dumitrescu Hurlin (DH) has some advantages over the Granger causality test. Firstly, cross sectional dependency between countries building panel data is taken into the consideration in this test. Moreover, Dumitrescu Hurlin causality test is useful for unbalanced panel data. The main requirement of this test is that variables used in the causality test must be stationary. In order to fulfill this condition, panel root tests must be employed before applying Dumitrescu Hurlin panel causality test. The details of this test were demonstrated below (Dumitrescu and Hurlin, 2012).

$$Y_{i,t} = a_i + \sum_{k=1}^{K} Y_i^k Y_{i,t-k} + \sum_{k=1}^{K} B_i^k X_{i,t-k} + \varepsilon_{i,t} \quad (1)$$

With respected to this equation, K represents the optimum lag interval. Besides, Y and X refer to the variables of which causality analysis will be examined. Namely, the aim of this analysis is to find whether X is the cause of Y or not (Dinçer et. al., 2017). Some studies related to this methodology are demonstrated on Table 3.

As it can be seen from Table 3, Dumitrescu Hurlin panel causality analysis was mainly considered in the studies which focus on the relationship between macroeconomic variables. For example, Adams and Klobodu (2017) tried to explain whether there is a causality relationship between capital flows and income distribution in African countries with this methodology. Similar to this study, Beckmann and Czudaj (2017) reached the similar results by using this method for different countries. It is determined that capital inflows lead to income inequality among people. In addition to these studies, Wong (2017) aimed to identify the relationship between exchange change rate returns and stock prices. As a result of Dumitrescu Hurlin panel causality analysis, it is defined that the exchange rate markets affect the stock markets. Furthermore, Adewale (2017) reached the conclusion that import substitution policy has a significant effect on economic growth.

Moreover, it can also be seen that Dumitrescu Hurlin panel causality analysis was used in the studies that evaluate the relationship between energy consumption and economic growth. For instance, Fang and Chen (2017) tried to analyze this relationship for China. With the help of this methodology, it is concluded that energy consumption leads to economic development of the country. Parallel to this study, Menegaki and Tugcu (2017), Hasanov et. al. (2017), Kahia et. al. (2017) and Bakırtaş and Akpolat (2018) reached the similar results by using same method for different countries. On the other side, Mahalik et. al. (2017) emphasized that there is a U-shaped relationship between financial development and energy consumption for Saudi Arabia.

In addition to them, it is also understood that this analysis was usually used to identify the relationship between electricity consumption and economic growth. As an example, Zhang et. al. (2017) tried to analyze this relationship for China. With the help of Dumitrescu Hurlin panel causality analysis, it is defined that electricity consumption has a positive influence on economic development of the country. Similarly, Shahbaz et. al. (2017) also focused on this relationship for 157 different countries. By using the same methodology, it is analyzed that there is a causal relationship between electricity consumption and economic growth.

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Table 3. Studies related to Dumitrescu Hurlin panel causality test

Authors	Scope	Result
Adams and Klobodu (2017)	African Countries	It is identified that capital flows lead to income inequality in African countries.
Wong (2017)	7 Different Countries	It is concluded that exchange rate markets play a significant role to identify stock prices.
Zhang et. al. (2017)	China	They reached a conclusion that electricity consumption has an importance influence on economic growth.
Shahbaz et. al. (2017)	157 Different Countries	They determined that there is a two-way relationship between electricity consumption, economic growth and oil prices.
Solarin et. al. (2017)	Ghana	It is concluded that when the population of a country goes up, it will cause air pollution.
Adewale (2017)	BRICS Economies	It is identified that when a country implements import substitution policy, it will have a positive influence on economic development of this country.
Fang and Chen (2017)	China	They reached a conclusion that high consumption of energy positively affects economic growth.
Singh and Bhattacharya (2017)	54 Different Countries	They determined that easy availability of cash has an increasing effect on corruption.
Beckmann and Czudaj (2017)	24 Different Countries	It is defined that there is a positive relationship between capital flows and economic growth.
Mahalik et. al. (2017)	Saudi Arabia	They analyzed that when there is an increase in energy consumption, it will have an increasing effect on financial development.
Menegaki and Tugcu (2017)	G7 Economies	It is determined that energy consumption leads to economic welfare.
Hasanov et. al. (2017)	10 Asian Countries	It is identified that in case of high consumption of energy, economies will be more developed.
Kahia et. al. (2017)	MENA Countries	They concluded that there is a causal relationship from energy consumption to the economic development for MENA countries.
Bakırtaş and Akpolat (2018)	6 Emerging Economies	They defined that for economic development in emerging economies, there should be high energy consumption.
Kim et. al. (2018)	55 OIC Countries	They identified that financial inclusion has a positive influence on the economic improvement.

Analysis Results

In the first stage of the analysis, Levin, Lin and Chu and Im, Pesaran and Shin W-stat unit root tests were performed to understand if the variables of Islamic stock exchange, GDP growth rate and inflation rate are stationary or not. The results of these tests were given on Table 4.

Table 4 shows that probability values of both two unit root tests for each variable are lower than 0.05. This condition explains that all variables are stationary on their level values. After stationary analysis, Dumitrescu Hurlin panel causality analysis was performed and the results were detailed on Table 5.

Table 5 demonstrates Dumitrescu Hurlin panel causality analysis results for the first, second and third lag. It was seen that probability values for the null hypothesis “Islamic Stock Exchange does not cause Economic Growth” are less than 0.05 for the second and third lag although it is higher than this value for the first lag. Moreover, the probability values of the null hypothesis “Economic Growth does not cause Islamic Stock Exchange” for each lag are less than 0.05. Thus, this null hypothesis can be rejected. That

Table 4. Unit root test results

Variables	Levin, Lin and Chu Test (p Value)	Im, Pesaran and Shin W-stat Test (p Value)
Islamic Stock Exchange	0.0018	0.0198
GDP Growth	0.0001	0.0000
Inflation Rate	0.0058	0.0000

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Table 5. Dumitrescu Hurlin panel causality test results

Null Hypothesis	Probability Values (lag=1)	Probability Values (lag=2)	Probability Values (lag=3)
"Islamic Stock Exchange" does not cause *"Economic Growth"*	0.6070	0.0000	0.0000
"Economic Growth" does not cause *"Islamic Stock Exchange"*	0.0477	0.0000	0.0000
"Inflation Rate" does not cause *"Islamic Stock Exchange"*	0.0000	0.0000	0.0000
"Islamic Stock Exchange" does not cause *"Inflation Rate"*	0.0392	0.0543	0.0000

is to say, it was concluded that there is a causality relationship between GDP growth and Islamic stock exchange value for both ways. This result gives information that economic improvement is the main reason of the development in Islamic stock exchange for European countries. Similarly, Cheung and Lilian (1998), Ahmed (1999), Beck and Levine (2004), Yartey (2008) and Cherif and Gazdar (2010) underlined the same conclusion.

Furthermore, with respect to the null hypothesis "Inflation Rate does not cause Islamic Stock Exchange", the probability values are less than 0.05 for each lag which means that this hypothesis can be rejected. On the other hand, regarding the null hypothesis of "Islamic Stock Exchange does not cause Inflation Rate", probability values for the first and third lag are less than 0.05 despite the fact that it is higher than 0.05 for the second lag. These results demonstrate that there is also a causality relationship between inflation rate and Islamic stock exchange. The main reason is that in case of high inflation, investment amount of the companies in European countries will decline because of the uncertainty in the market. Maku and Atanda (2010), Eita (2011) and Aktaş and Akdağ (2013) also determined that inflation rate has impacts on the stock market development.

SOLUTIONS AND RECOMMENDATIONS

In this study, it is concluded that there is a causality relationship between Islamic stock index with inflation rate and economic growth for European countries. In other words, it is determined that inflation rate and economic growth have a significant effect on the development of Islamic stock market. Because economic growth affects private investment in the country, it has an important impact on the development of Islamic stock exchange. Additionally, inflation rate is accepted the main cause of Islamic stock market development because it increases uncertainty in the market. Therefore, it can be said that countries should focus on the policies to increase economic growth and decrease inflation rates. With the help of these kind of policies, it will be possible to improve Islamic stock market. Because companies, which are included in Islamic stock market, have to obey ethical rules, it will improve the performance of the economies as well.

FUTURE RESEARCH DIRECTIONS

In this study, it is aimed to analyze the causality relationship between economic growth, inflation rate and the development of Islamic stock market. This situation is firstly discussed in this study, so it makes an important contribution to the literature by considering an important topic for European financial market.

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However, a new study, which focuses on different markets, will also be beneficial to the literature, such as developing countries or United States. Moreover, another study that evaluates the effects of other variables on Islamic stock markets will also contribute to the literature.

CONCLUSION

Stock exchange has many benefits for the economies. First of all, companies can find the money for investment easily by selling their stocks on this market. In addition to this situation, people, who have savings, can earn dividend income while purchasing the stocks of the companies. Owing to those aspects, it can be said that development of the stock exchange should be provided for economic improvement. Within this context, stock exchange index is a way of calculating the performance of stock exchange.

On the other side, Islamic stock exchange is a new concept for this issue. It refers to the market where operations are performed according to Islamic rules. In other words, companies, whose operations are in favor of these rules, can be included in this market. The aim of this study is to analyze the effects of economic growth and inflation rate on Islamic stock exchange values. Within this scope, quarterly data of 13 European countries for the periods between 2002:2 and 2016:3 were evaluated by using Dimitrescu Hurlin panel causality test.

In the analysis process, firstly, Levin, Lin and Chu and Im, Pesaran and Shin W-stat unit root tests were performed to see whether the variables of Islamic stock index, economic growth and inflation rate are stationary or not. It was understood that all three variables do not have unit roots. As a result of Dimitrescu Hurlin panel causality analysis, it was concluded that there is a causality relationship between Islamic stock index with inflation rate and economic growth for European countries.

GDP growth represents the improvement in the economy. Because of this situation, it can be said that private investments increase in case of economic growth. Therefore, it has an important effect on the development of Islamic stock exchange. Furthermore, since inflation rate shows the uncertainty in the market, companies will be unwilling to make investment when there is high inflation. In conclusion, this condition has a significant effect on the improvement of Islamic stock market.

Ethical behavior plays an essential role in the performance of financial markets. In other words, with the help of the ethical rules, investors feel themselves in a more secured situation. Owing to this issue, they decide to make higher investments. However, if there is a problem for the security of the markets, people will not be willing to increase their investments. This situation has a negative impact on the economic development of the countries.

While considering the findings of this study, it can be understood that companies, which are stated in Islamic stock exchange, have a powerful effect on the economic development of the countries. Because these countries give importance to the rules of Islam, they also have to obey the ethical rules in the market. Owing to this situation, trade will be made in a regulated manner and this leads to economic improvement.

In this study, it is aimed to analyze the causality relationship between economic growth, inflation rate and the development of Islamic stock market. This situation is firstly discussed in this study, so it makes an important contribution to the literature by considering an important topic for European financial market. However, a new study, which focuses on different markets, will also be beneficial to the literature, such as developing countries or United States. Moreover, another study that evaluates the effects of other variables on Islamic stock markets will also contribute to the literature.

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KEY TERMS AND DEFINITIONS

Corporate Social Responsibility: It refers to the social responsibility activities performed by the companies.

Dumitrescu Hurlin Panel Causality Analysis: It is a type of causality analysis in which panel data is analyzed. It is an advanced form of Granger causality analysis.

Economic Growth: It refers to the growth rate of GDP over the periods.

Ethic: It means the set of principles that regulates the behavior of the people.

Inflation: It gives information about the general increase in price levels.

Islamic Stock Market: It refers to the stock market in which there are only companies that obey the rules of Islamic religion.

Private Investment: It means the amount of money which is invested by private companies in a country.

Public Investment: It refers to the amount of money which is invested by government.

Social Responsibility: It refers to the actions which are helpful to the other parties.

Stock Exchange: It refers to the place where marketable securities can be traded according to legal rules.

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Chapter 5
Customer Centric Innovation in Banking Sector

Sinemis Zengin
Marmara University, Turkey

ABSTRACT

Highly competitive business environments make innovation a key element for survival. Though there are many companies that have been market leaders, they failed. The main reason behind the failure is lack of innovation. This is why companies have to find new discoveries and strategies to survive. Even though innovation is generally defined as a creation of idea, it is more than an idea. It is a process that includes a series of steps that begin with imagination and result in the creation of something. Innovation provides solutions for requirements in a unique way. Before the imagination steps, companies have to understand deeply customers' needs or desires to define requirements of customers. In this chapter, the customer-centric innovation process explained in seven stages.

INTRODUCTION

Innovation seems as a key driving force of economy that may lead to the ruin of culture and nature by creating new knowledge, technologies and markets (Nooteboom and Stam, 2008). Innovation has a crucial role for all firms to survive, including banking sector. Banking sector is a high regulated and competitive marketplace that provides relatively same service, not more than the core banking service (Howcroft, and Lavis, 1986). When one bank develops a new product, it quickly spread in market and no longer provides advantage. Within the rise of start-ups and spreading of technology, banks have a new challenge, a risk of become an antique, beyond the risks natured to bank such as management of interest rate, liquidity vb. Becoming the innovator provides market advantage. However, one-time innovation isn't sufficient for banks. Instead of one-time innovation programs, banks required sustainable innovation methodology (Muller and Valikangas, 2005).

Many years, innovation assumed as a scientific or technological invention as a result of systematic research. However, within empirical innovation term, observation accepted one of the approaches to understand daily life in innovation stages (Sundbo and Toivonen, 2011). (Kelley and Littman; 2005)

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states that successful innovation has three pillars; business model, platform and customer experience. (Atkinson and Ezell, 2012) defines innovation with 7"I"s; inspiration, intention, insight, incentives, institutions, investment, and information technology. Understanding and coverage the need of customers is the key element of the success to make available in the marketplace (Dover, 1987). According to (Kelley and Littman; 2005), customer engagement innovation is a deep understanding of customer and user and using of those insights to develop meaningful connections.

In this paper, customer centric innovation process explained in seven stages. The first step of the innovation process is discovery. And, customer interaction is the key component of the discovery stage. Second step is objective. Companies need to define their problems that work on. Third step is ideation. In the ideation stage, participant should come up with fresh ideas by thinking differently. Fourth step is prototyping of the idea. In this stage, it is important to make idea into physical object for testing. Fifth step is testing. Test stage includes customer usability and requirement testing on the customers really need the idea? Sixth step is validation. After the testing customer feedbacks companies need to validate their ideas depends on the feedbacks. Seven and final step is implementation. In the implementation stage, companies have to follow agile methodologies to create the idea just in time to catch leadership. Beyond the finding idea, implementation of the idea also play important role, companies must be quick. Innovation is not one time action. It needs systematic approach and speed. Additionally, another important factor for innovation is organization culture. Innovation is a complex process that requires cross-functional organization support to achieve success. There are new methodology that startup apply naturally to make their ideas come true. This paper aim is to define steps of the customer centric innovation based on design thinking approaches might be useful for companies.

MANAGEMENT OF CUSTOMER CENTRIC INNOVATION PROJECTS

Innovation is not only an idea; successful innovation includes execution (Govindarajans and Trimble; 2010). Moreover, it is creation of an idea with coordination and planning of products, services, brands, and technology inventions with new aspects (Mootee, 2013). Understanding of customer is complex, it requires systematic approach to interpret customer insights and understand their pain paint to develop or re-develop a product or service. Design methodologies are the simple process that contributes substantially to organizations on building new product, services or strategies (Brown, 2009). However, general problem on innovation process is managerial process for brining the idea to the market rather than lack of innovation (Allio, 2005). Design methodologies push team to creative thinking and turn the team into action more than planning with systematic approach. Additionally, design methodologies are flexible on reflecting customer's intuition attitude, and experience by providing clear picture to organizations. Where as traditional business models are rational and static assumption that is aiming to find only one best solution, design methodologies are experience-based assumption that is aiming to find better options. Traditional business models have a planning based, however design thinking has an action based process (Liedtka and Ogilvie, 2011).

One of popular innovation workshop provides an idea turn to real in 24 or 48 hours is Hackathon. Hackathon is a special fun-filled workshop where a group of people working as a teams and builds a quick hack to solve some problem innovatively (Varma, 2015). (Varma, 2015) summarize advantages of hackathons as;

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1. Empowering people: innovation is social activity that everybody in the team produces an idea. When the idea gets support it quickly spread to management level.
2. Eliminating fear or embarrassment of failure: Hackathons promote to make failure. Without fear of make a mistake, team member are encouraged to think differently that enhance creativity.
3. Creating Fun: Having fun provides take of the pressure on team members and increase performance. Additionally, it encourages people to work together on complex problem solving.
4. Providing Help: In the complex organization, collaboration may be hard to solve on complex problems. However, hackathons give opportunity to work closer in limited time with small team includes engineers who have different background.
5. Thinking Bite Size: Team has limited time and recourses in hackathons, it takes only 24 or 48 hours. However, team member can create a creative solution to solve problem in the limited time within systematic thinking approaches.
6. Encouraging speed: Pressure of limited time force team member to think in different aspect and creative solution with new way.
7. Lowering the barriers to innovation: In contrast to long decision making or execution process that generally follow by organizations, hackathons provides a quick innovation.

INNOVATION AND DESIGN THINKING

There is no one definition of innovation. And also, definition of innovation has been changing in years. Rogers (2003) defines innovation as an idea, practice, or object that is perceived as new by an individual or other unit of adoption. Anthony (2012) defines innovation as something different that has impact. Satell (2017) defines innovation as a novel solution to an important problem. According to March (1991), there are two types innovation exploration and exploitation. While exploration innovation represents the new knowledge, products and services for emerging customers and markets, exploitation innovation is based on existing knowledge and extending existing products and services for existing customers.

Design thinking methodology started using around 1960s with design movements and it is become popular in 2000s, because of the success of the methodology on complex problems. And today, it is a scientific approach (Connel and Tenkasi, 2015). Design thinking has board definitions such as "a systematic and collaborative approach for identifying a problem and finding creative solutions" (Luchs et al, 2016), "a human-centric and holistic approach that helps to create solutions" (Mootee, 2013), or "it is methodology that helps organizations close gaps between analytical thinking and intuitive thinking" (Martin, 2009).

Design thinking is a human based methodology to help organization learning from the lives of other; from customer to other departments in the organization that focus on innovation, problem solving, developing or re-developing of products and services within different aspect (Brown, 2009). Because starting point of design thinking is insight of customer, it opens up new innovation opportunities. Design thinking and innovation steps are very familiar approach entwined together. Different design thinking methodologies and innovation steps stated in Table 1 and Table 2. Innovation steps include customer insight stages. However, design-thinking methodology is systematic approach that has deep understood stage for customer.

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Table 1. Design thinking methodologies

Authors	Steps Suggested by Authors
(Bell, 2008)	1. Understand: Understanding of targeted customer pain point and needs and 2. Observe: Research on understanding targeted customer daily life based on observation. 3. Visualize: Creation phase that includes sketching ideas to make visual for clarify concept. 4. Evaluate and refine: Prototyping of final idea to test with targeted customer to understand usability of idea with minimum cost 5. Implement: Launching the final idea to market
(Luchs et al, 2016)	1. Discover stages includes deep data collection and analysis to explore customer's pain point 2. Define stages focus on customer's feelings to gain more insight from customer 3. Creation stage encourage developing an idea that may solve problems defined end of the discover stage. 4. Evaluation stage focus on gathering powerful feedbacks from customer to finalize the idea with customer needs.
(Platter, 2017)	1. Empathize with customer to clarify their needs. 2. Define the problem faced by customers that need to be solved. 3. Ideate the alternative solution 4. Prototype the idea to provide same experience to customer to get their feedbacks before production. 5. Test the idea to make sure that the idea solve customer problems before production.
(Ambrose and Harris, 2010)	1. Defining of the problem: There are useful questions that need to ask during this stage. *"Who is the customer?, When will the solution be needed?, Where will the solution be used?, Why a solution is required? And How will the solution be implemented?"* 2. Research stage includes gathering and analysis of data to achieve detailed information about targeted customers. 3. Ideating stages includes brainstorming section that helps to create potential solutions of problems defined by a top-down analytical or a bottom-up approaches. 4. Prototypes provide test the idea in a physical object. 5. Selection of final idea which fit to target of organization 6. Implementation is delivering the final idea 7. Learning from customer and validation of the idea.
(Pavie and Carthy, 2015)	1. Extensive ethnological research on customers 2. Setting up a workshop to identify problems 3. Setting up a workshop to create alternative solutions 4. Setting up a workshop to find out final idea 5. Implementation of the final idea
(Liedtka et. al., 2013)	1. Visualization of current situation, how customer interact with organization 2. Journey mapping to design ideal journey that will increase customer experience 3. Value chain analysis to defines values provide excellent customer experience. 4. Mind mapping to generate ideas regarding customer' insight 5. Brainstorming to create alternative solutions. 6. Creating of concept on ideal customer journey 7. Testing of solution inside organization. 8. Rapid prototyping to testing the solution with customers. 9. Creating the best solution with customer feedbacks 10. Launching of the final idea and testing in production.

Source: Zengin, 2018

SEVEN STAGES FOR CUSTOMER INNOVATION

Customer centric innovation process explained in seven stages; Discovery, Objective, Ideation, Prototyping, Testing, Validation and Implementation.

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Table 2. Innovation steps

Author	Steps Suggested by Authors
(Michelli, 2008)	1. Inspire vision ● Provide recognition 2. Foster environment ● Promote benchmarking 3. Stimulate ideas ● Encourage risk 4. Test ideas
(Atkinson and Ezell, 2012)	1. Inspiration: Setting Ambitious Goals 2. Intention: Making Innovation-Based Competitiveness a National Priority 3. Insight: Improving Understanding of Innovation Performance 4. Incentives: Encouraging Innovation, Production, and Jobs 5. Institutional Innovation 6. Investment: Increased Public Funding for Innovation 7. Information Technology
(Miller, 2006)	1. Define goals 2. Identify customer problems and potential solutions using problem analysis, cost/benefit analysis, solution analysis 3. Strategy development 4. Draft business plan 5. Prototype of solution 6. Validate problem and solution by customer testing 7. Identify of partners 8. Product development process
(Rogers, 2003)	1. Recognizing a problem or need: what is the problem need to defined at the beginning of innovation to define scope of the research. 2. Basic and applied research: What are the tools we use in innovation process; during the innovation process *"knowledge, skills, procedures, and/or principles"* should be considered. Information is the key tool for research. 3. Development: Development is creation phase of innovation. Idea development should consider customer expectations and needs rather than top managers' expectations. 4. Commercialization: The production, manufacturing, packaging, marketing, or distribution of a product that embodies an idea. 5. Diffusion and adoption: Delivering the innovation to targeted customers 6. Consequences: Within the innovation, new needs may arise; this stage sets off another innovation development cycle.

Stage 1: Discovery

As Albert Szent-Gyorgyi stated *"Discovery consists of seeing what everybody has seen, and thinking what nobody has thought."* (Varma, 2015). During the discovery stages contains solid research, teams collect information, number, analysis that may give different aspect to team on way of innovation. First step of the discovery stage is building a team and sharing roles;

1. **Building a Team and Sharing Roles:** Building a team is the key element of customer centric innovation. Two teams suggested depend on size of project; a dedicated team and a supporter team (Govindarajans and Trimble; 2010). For instance, dedicated team may include people from product development and also supporter team may include members from legal and compliance. Defining partnership between dedicated team and supporter teams is required for agile project management. (Kelley and Littman; 2005) suggests defining personas inside of the organization to enhance innovation. These personas may be useful inside team on sharing roles;

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a. The anthropologist provides insights into the team by observing customers behaviors and attitudes to understand how customer interact with banks
b. The experimenter prototypes new ideas
c. The cross-pollinator explores benchmarks and best practices
d. The hurdlers is person who never give up and provides solutions to overcome obstacles
e. The collaborator helps bring diverse background team members work together
f. The director is creator of team and helps team member to increase their creativity
g. The experience architect is a designer of current customer journey to understand deeper level of customer needs and to help the design new one
h. The set designer create a working place or environment to increase motivation and creativity
i. The caregiver is a team member who are anticipate customer needs
j. The storyteller is a communicator who provides internal moral and external awareness during project to convince executives.

2. **Stakeholders:** Management of stakeholders includes determination of who the stakeholders of the project are, what the innovation drivers are, and how the key stakeholders' needs are identified. Stakeholders may have different target, and their requirements often conflict. Stakeholder meetings provide understanding of stakeholder target and relationship between stakeholders (Majava, 2014).
3. **Voice of Customer:** Voice of customer (VoC) is a way of marketing and research methodology to deep understanding of customers (Roman; 2011). Voice of customer is also powerful methodology for innovation to understand customers' needs. Instead of direct question, building empathy is more useful to achieve powerful insights from customer (Watkinson, 2013). Surveys, focus groups and ethnographic research are the generally methods using to gain insights from customers (Yang; 2008). There are four questions need to clarify in advance of customer selection; (Compos; 2012)
   a. **Who Are the Customers:** Customers will be interviewed have to represent the segment that business wants to reach.
   b. **How Many Customers Need to Interview:** Number of interview related with target of the project. But, (Compos; 2012)'s suggestion is no more than 24 interviewees.
   c. **Which Place Will Be Used:** The most appropriate place would be far from customers' environment that help able to concentrate much better without constant interruptions.
   d. **What Is the Cross Section:** Defining of segment of the customers. For example small, medium and large companies.
4. End of the interview, customer needs may classify in primary, secondary, and tertiary to understand customer's essential needs. Primary needs are known as strategic needs. After determination of primary need, each primary needs elaborated into three to ten secondary needs. Secondary needs are customer needs that must covered to satisfy. And tertiary needs are operational or detail needs of the customer (Gaskin et. al.; 2018). Affinity diagram may be useful to organize feedbacks collecting from customers. Affinity diagram is a map to group similar findings or concepts are grouped together to identify trends in data (Baxter and Courage, 2015). First stage of affinity diagrams is defining classifying of similar information. Second step is defining of main topics. Than, information making a group into related topics (Curedale, 2016).

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Stage 2: Objective

Objective stage contains defining of problem and target of the project. (Keeley, 2013) defines that key element of innovation is identifying the problems that matter and moving through systematically. Because of this objective stage has a key role to build idea on a strong backbone. During objective stage, face to face or ethnographic interviewing and customer journey mapping are useful to deep understand customer to define problem. Additionally, understanding of the targeted customer daily process provides significant insights. The real insight occurred with the data collecting from customer interviews, stakeholder meetings, analysis and patterns customer must follow (Brown, 2009). Fact collecting and data gathering may take time, however, objective stage is important for the next steps, even though spending time at the front end of the process exploring the question and its context takes long time, it provide more effective solution at end of the projects (Jeanne, 2014).

Stage 3: Ideation

Ideation is a stage that synthesize of the insights from objective stage. Ideation part generally arrange by workshop where attend many participant who have different backgrounds. Ideation workshop includes brainstorming session that stimulates one of the group members to another member, who can then contextualize it, creates an idea chain (Wylant, 2008). The output from the ideation stage is a set of explorative idea maps includes sketches, scenarios, storytelling and internal communication (Frisendal, 2012). According to (Brown, 2009), powerful innovation workshops should include criterias such as;

1. The best idea emerged when whole organization ecosystem, thus participation of ideation workshops should include people who have different background inside the organization not only project member or designers.
2. New technologies, shifting consumer needs, strategic threats or opportunities should be discussed during the workshop to adapt changing externalities.
3. Ideas shouldn't be favored based on person or people who suggested by.
4. Ideas, which supported by many participants, should be favored.
5. Sponsor of the project should tend, prune and harvest the ideas selecting end of the workshop.
6. Purpose of the idea should be underlined to create sense of direction inside the organization.

Ideation stage includes three main steps; generating ideas; refining ideas and selecting ideas; First step is generation of ideas; "what if" is a good question to inspiring team members to think beyond the norm and perceived barriers to "chance". There are some techniques which help to team become more creativity. These are;

- **Brainstorming:** Brainstorming is a methodology used to engender creative ideas to problem solving. Brainstorming mythology provides to remove boundaries during the creation of ideas and enhance creation of alternative solution rather than focusing on one type idea. During the brainstorming section, there is no bad idea. Every idea that comes up mind deserves to discuss to find better one. Criticize is not allowing during the section. Keeping high of team member energy and motivation is important to generate creative ideas. Key success of the brainstorming section is number of ideas (Kaptein, 2014).

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- **Lateral Thinking:** lateral thinking is method using for moving from one known idea to creating new ideas. Method starting by diminishing a know idea into patterns. Second step is research on how the idea may change to new idea without limits. Third step is adjustment of the idea to real world (Bono, 2015).
- **FCN Grid:** FCN Grid was developed to define problems behind the complex information. FCN Grid is a matrix includes 4 parts; High involvement, low involvement, think and feel. High involvement represents perception of expensive products while low involvement represents low cost products. And feel shows customers' emotional needs and desires while think represents verbal, analytic and cognitive of products (Michalko, 2006).
- **Six Thinking Hats:** (Bono, 1985) introduces six thinking hats approach to increase performance creativity in team works. In the six thinking hats approach, each colored hats represent different point of view. There are six hats; these are white, yellow, black, red, green and blue. Meaning of hats;
  - **White Hat:** The White Hat represents *"the information known or needed"*. This step is for collecting of facts.
  - **Yellow Hat:** The Yellow Hat represents "*brightness and optimism*". In the section of yellow hat, team member consider positive side of the idea and try to discover new benefits.
  - **Black Hat:** The Black Hat is symbol of "*judgments*". Each team member starts to think on negative side of idea and become defender to discover reason behind the failures. Additionally, this section spotlight potential challenges.
  - **Red Hat:** The Red Hat represents "*feelings, hunches and intuition*". Under the red hat team starts to think on feelings such as happiness, sadness and pains.
  - **Green Hat:** The Green Hat is symbol of "*creativity*"; team looking for an idea may produce new thoughts and alternative approaches.
  - **Blue Hat:** The Blue Hat "*is used to manage the thinking process* "to define how problems maybe solved by understand subject deeply and defining target of the solution.
- **Scamper:** Scamper is method to produce alternative idea. Scamper method includes some questions stated below. Steps of scamper method are; (Michalko, 2006)
  - Substitute something
  - Combine the idea with something else
  - Adapt something to the idea
  - Modify or Magnify the idea
  - Put the idea to some other use
  - Eliminate something
  - Reverse or Rearrange the idea

A second step is refining of ideas; after generation of ideas, the second part of the workshop, team member focus on making the idea visualize by sketches to finalize the idea. In this part, ideas gain solid form from cloudy ideas. In this part, sketches of idea help to identify features of product or services in advance of the development process (Razzouk and Shute, 2012).

A third step is selection of ideas; end of the ideation stage, we may have a lot of ideas that is not possible to implement everything. Thus, idea section is helps to determine roadmap of ideas which one is more suitable. Three criteria; feasibility, viability and desirability of ideas may guide on selection of ideas. Feasibility is possible functionally in the certain future, viability is possible partnership of

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sustainable business model and desirability is a measure of how this idea affects people (Brown, 2009). Common idea selection methods; (Dam and Siang, 2017)

- **Post-It Voting:** Team members vote three or four ideas in order to choose their favorite ideas.
- **Four Categories Method:** Four categories are "*the rational choice, the most likely to delight, the darling, and the long shot*". Team members may decide on final idea according to categories.
- **Bingo Selection:** Team members may use variety parameters to decide final idea. Team members may measure which idea cover customer need by testing on prototypes prepare in physical or digital or both.

After the selection of idea, business model is needed to define by team members. Business model is plan of how firms generate revenues and make a profit. Business model canvas is a diagram that shows relationship of factors**;** customer segments, customer relationship, channels, value proposition, key activities, key resources, key partners, cost structure of the business model and revenue streams (Osterwalder and Pigneur, 2010).

Stage 4: Prototyping

Many good ideas may fail end of the project with huge cost. Instead of testing an idea at really life, prototyping of ideas provides a low cost building of product or service to test whether an idea is working or discover new and better idea (Leavy, 2012). Storyboard is an illustrating of specific function of the idea includes targeted customer daily event or potential behaviors to explain function or story (Baxter and Courage, 2015). Additionally simplicity of prototype is crucial to give right message to targeted customers (Reynolds, 2012). Common methods using for prototype idea are; (Glaveski, 2018)

- **Targeted Ads:** Platforms such as facebook, instagram and google provide low cost advertising to attract targeted customers. Designer may create visual and post to measure how many clicks being collected during the post.
- **Landing Pages:** Landing pages are using to give some detail about the idea. Designer may add information about idea and measure how many people click the landing page to get more information.
- **Email Marketing:** By sending out emails includes information about idea to targeted customer is one of the method using for idea testing. Within email marketing designer can measure that how many people opened and clicked through.
- **Linkedin and Email Outreach:** Linkedin one of the platform designer may introduce the idea to measure interest based on the number of people who accept and respond to the enquiry.
- **Explainer Video:** Designer may put the idea into video and send to targeted audience to measure their interest.
- **Paper Prototype:** Paper prototype is quick method to demonstrate the idea to targeted customer. During the test, moderator may collect very constructive feedback about coverage of needs and usability.
- **Drawing:** Sometimes only visualizing of the idea enough for collecting feedbacks form targeted customer. Drawing of the idea is very simple prototype to visualize the idea.
- **Mobile App Prototypes:** Mobile app prototypes help to obtain more feedbacks from targeted customer rather than measure to their interest. Customers use quickly build and functioned apps

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in their hands. Within mobile app prototypes designer may test many metrics such as coverage of customer needs and usability of app. According to (Krug, 2014), there are 3 facts that faced with both mobile apps and web pages. Within time passion, people are skimming instead of reading. When targeted customer face with dilemma, they give up to use it instead of try to understand. And also, people can't prefer optimal choice. Mobile app prototype also useful to understand how customers read information or use the mobile app. Designer may collects valuable feedbacks to design final mobile apps by observation during test.

- **3D Printouts:** 3D printouts generally are used for physical products. 3D printout of the product is significantly cheaper and faster way of visualize of products rather than production.
- **Cardboard:** Cardboard is also using for visualize of product.
- **Crowdfunding:** Crowdfunding is useful method for entrepreneurs and startups to find fund to bring their idea to real (Zengin et al, 2017).

Stage 5: Testing

Testing the idea is important part of the customer centric innovation to understand whether created idea is working. During the test stage, prototype testing by targeted customer depends on prototype to measure viability of the idea. Targeted customer start to give feedback when they feel comfortable. During test phase, understanding the targeted customer's choice selection would be very powerful (Thaler and Sustein, 2008). While soft prototypes such as landing pages, targeted ads, email marketing provide information on whether targeted customer attracted, touchable prototypes such as mobile apps, paper prototypes, 3d printouts may provide constructive feedbacks during face to face interviews. Framework of the test phased stated as; (Dam and Siang, 2017)

1. Let the targeted customer compare alternatives
2. Let your users experience the prototype instead of tell
3. Ask targeted customer to talk regarding their experience
4. Observe and takes note
5. Ask follow up questions

A/B testing one of the powerful techniques using for measure the number of people interested in soft prototype defined above. In A/B testing, A represents users that see the new design and B shows achievements on differences between A and B (Baxter and Courage, 2015).

Stage 6: Validation

In the validation stage idea is designed by feedbacks and mistakes were noted in the testing stages. The reason behind the validation part is fixing the idea has weak demand during test. There five validation types; (Venkatesan, 2018)

- **Problem Validation:** Customer centric innovation starts with the definition of problem. However, we must be sure that targeted customer has the problem. If test result shows that targeted customer don't have the problem, project members should reconsider the problem.
- **Customer Validation:** Team members must be sure those targeted customers exist.

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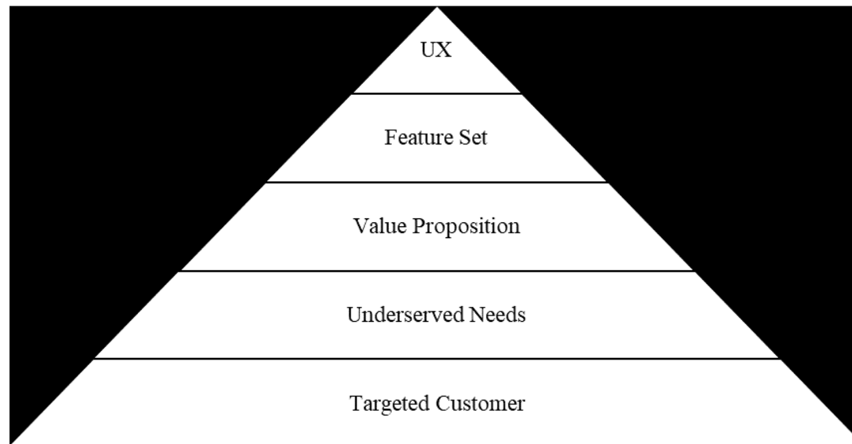
Figure 1. The production market fit pyramid
Source: *(Olsen, 2015)*



- **Concept Validation:** Prototypes helps to visualize the idea to make sure that targeted customer understand the idea. By customer test, we validate that the solution is correct or needed some iteration.
- **Experience Validation:** After knowing that the idea provides solution fit the targeted customer, team member should measure that visual detail and functionality of the idea is sufficient.
- **Technical Validation:** After the product or idea is build, technical validation is required to check the system or idea whether has any problems.

Stage 7: Implementation

Many ideas may seem as valuable when taken out of heads, however, when firms start to build the idea, it may turn tangible idea that not deserved anymore. Agile metrology helps firm to test their idea during production with lower cost (Varma, 2015). Agile arise for software development to enable quick customer focus digital development in 2001. After agile arising, it quickly spread because of it cost efficient model (Denning, 2016). Today, agile methodology is using in many cases. While design thinking is methodology that focus on problem finding, agile is a customer centric approach that includes project management, software design, architecture and process improvement (Stellman and Greene, 2015). Collaboration with customers is the key step of agile methodology (Greer and Hamon, 2011). According to (Olsen, 2015), there 5 testable hypothesis during agile development to understand an idea fit to market that names as the production market fit pyramid. Each step of the market fit pyramid; targeted customer, undeserved needs, value proposition, features and UX needed to test.

3 main pillars of agile are small team, customer and network (Denning, 2016). Every step of agile management includes customer empathy and understanding of end users. Different from waterfall software development, agile software development focuses on user cases rather than business requirements (Stellman and Greene, 2015). To achieve successful agile project management, there are 12 characteristics that should be followed; these are; (Misra et. al, 2012).

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1. Target is coverage of customer needs and customer experience from beginning to end for a valuable product or service delivering
2. Changing requirements are welcome: Agile provide adaptation o changing environment welcoming changing requirement while waterflow development model avoid new requirements. And this provides competitive advantage in market.
3. Working software is delivered frequently: Agile provide quick deliver by step by step in couple of week or months while waterflow development model deliver software end of the project.
4. Collaboration: Main rule of the agile is collaboration. Team member have to work together daily to identify requirement of the project need to be done.
5. Motivation: Motivation is key element for agile methodology to increase performance with team members who believe their job and trust idea.
6. Face to face communication: Face to face communication is more efficient rather than phone call or email that may leads misunderstood. In the agile methodology face to face communication is key during daily agile meetings.
7. Key measure of success: In the agile methodology, key measure of success is working software.
8. Sustainable development: Agile methodology definitely provides sustainable development. Regular steps should be able to managed by team members
9. Technical excellence: Good design increase speed and provides technical excellence.
10. Simplicity: In the agile methodology simplicity is key element to eliminate inefficient work during project.
11. Self-organizing teams: Self-organizing teams increase efficiency of architectures, requirements, and designs whereas hierarchical organization limited the creativity.
12. Adaptation: Successful agile methodology requires focus on become more efficient in meeting by adaptation each other.

Common approaches that is using for agile methodology are scrum, kanban, lean, feature-driven development, adaptive software development, dynamic systems development method, crystal, rational unified process and extreme programming, (Cavallo and Ghezzi, 2017). Scrum and Kanban are one of most widely using agile approaches. Scrum provides coordination between teams rather than gives concrete methods for development whereas Kanban focus on optimizing the process flow (Tal, 2015).

In the scrum approach, development process divides into iterations named sprints. Ideally, development of sprints takes 1 to 4 weeks. Scrum is team working approach; each team should have Product Owner, Scrum Master and development team members (Lei, et al., 2017). Stakeholder is owner of business, product owner is a responsible person to stakeholder, who defines details of the idea, plans of duration of production, arranges backlog's development line and gives final decision on developed backlog. Scrum master is a representor of scrum values (Nidagundi and Novickis, 2017). Team members should work together in the same place to increase collaboration (Rola et. al., 2016). Every day, project team has meetings to define requirement. These meeting are named as a daily scrum (Schuh et. al., 2018).

Sprints provide more flexibility during the production and new requirement which come middle of the project are welcoming. Product backlog includes a list of items describing the requirements of the idea Product backlogs prioritize depends on importance level; high priority items, medium-priority items and Low-Priority items. Themes and features that essential for the production labeled as a high-

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level backlog items, whereas more detailed features such as user stories labeled as a low-level items (Tal, 2015). These user stories generally reflect customer needs such as "I want to apply for …" The backlogs combine to sprint backlogs. The sprint backlog is a set of defined task, features or functions meet the most important needs of the targeted customer which stated in details by the team had been already discussed in daily scrum (Accardi-Petersen, 2011).

In the implementation step, first target is building of minimum viable product (MVP). MVP is a version of product that is developed with the minimum effort and the least amount of time and still meaningful for customer (Ries, 2011). Building of MVP is important because it allows team to validate the customer feedbacks earlier. MVP features should be defined by targeted customer. All features should be tested with customer to define that the feature is needs or wants. Wants are the features that still convince a user to try product or services. Next step is creation of final product or service within feedback during MVP phase may enrich customer experience (Vii, 2016).

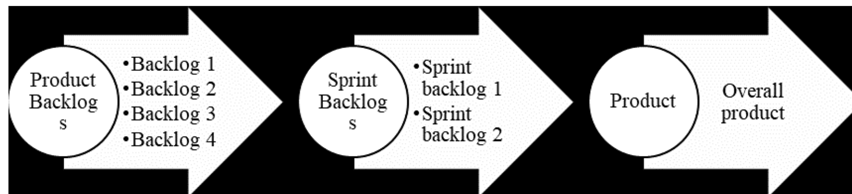
SOLUTIONS AND RECOMMENDATIONS

Customer centric innovation method and design methodology introduced to increase performance of new financial service and products. Customer centric innovation methodology provides customer insight and help banks to increase their value. It is highly recommended to use customer centric methodologies by understanding customer needs during to product or service design rather than business needs. New product and design that cover customer needs will increase revenue of banks.

FUTURE RESEARCH DIRECTIONS

This study aims to introduce new generation product or service development methodologies, customer centric innovation steps. For this purpose, one of the customer centric design methodology, design thinking and innovation steps are considered to define customer centric innovation stages. Additionally, for effective project management, actions maybe useful were defined for each stage. And also, agile methodologies; scrum and kanban were introduces.

Figure 2. Overall procedure of Scrum
Source: *Schuh et. al., 2018*



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KEY TERMS AND DEFINITIONS

Agile: Agile is a rapid and flexible software development approach includes collaboration of self-organizing, cross-functional team and customer.

Design Thinking: Design thinking is a method to create innovative idea or to solve problem using customer insights and design methodology.

Kanban: Kanban is an agile framework commonly using for manufacturing.

Scrum: Scrum is an agile framework for software development.

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Chapter 6
Developing Smart Contracts for Financial Payments as Innovation

Engin Demirel
Trakya University, Turkey

Seda Karagoz Zeren
Trakya University, Turkey

ABSTRACT

Innovation in smart contract systems helps to create decentralized payment systems. These developing concepts will be a new perspective to solve transparency issues. Smart contracts can prove all transactions and flow of funds and money between parties. Business deals and financial payment methods are expected to be a hybrid approach in both traditional and smart contracts in the future. Empirical analysis of smart agreements among their emerged platforms, different applications, and design views will enlighten future needs of trade payment methods. This chapter investigates the concept of smart contracts and critical issues for developing on financial payments environment. This research also aims to examine possible advantages of the application of smart contracts as innovation, legal, and technical aspects of the emerging business environment. The analysis will compare new mechanisms securing a block-chain applied to financial payments. This chapter also reviews the mechanisms of smart contracts and block-chain and focus on predicted future areas on the financial system.

INTRODUCTION

The effects of technological developments are seen in the field of finance as well as in every field. With the emergence of the concept of crypto money, new technologies, called block chains, form underneath this virtual money. One of the application areas of blockchain technology is creating smart contracts. The smart contract is a byproduct of the development of the internet of things. Improvement of complex, decentralized trusted computing and its algorithms has emerged that becoming a promising structure for future. Block-chains create an environment for a distributed peer-to-peer network. This network lets users who are non-trusting members, can trade funds and promised contracts without a trusted intermediary. This study also reviews the mechanisms of smart contracts and block-chain and focus on predicted future areas on the financial system (http://ieeexplore.ieee.org, 05.07.2018).

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Decentralized trusted trade environment will transform many industries that create new business models. Smart contracts will be some critical elements of this new business management system. One of the well-known forms of block-chain can be defined as cryptocurrencies recorded transactions in a decentralized structure. This feature evolved and shaped by smart contracts concept (https://dl.acm.org, 05.07.2018).

The future agreement will shape in this decentralized trusted environments and future of transactions emerged on block-chain ledgers. As the business environment adopts on smart contracts global money management and the world of banking will take shape (https://link.springer.com, 05.07.2018).

Economic concepts and infrastructures are also transforming new opportunities on cryptocurrencies and smart contracts. Smart contracts become a new tool for applying artificial intelligence (AI) systems. This AI will form legal and safety regulations more dominantly in the modern business environment (https://dl.acm.org, 05.07.2018).

Smart contracts need also increase in specific industries such as e-commerce sites, courts, credit card companies, insurance contracts. Future of business mainly becomes depended on the decentralized execution of programmable agreements. Block-chain technology widely adopted on trade, legal issues, business contracts which all interconnected with virtual currencies and payment systems.

LITERATURE REVIEW

Smart contracts widely found in the literature along with the application area of blockchain technology. Lian Yu et al., (2017) stated that work processes are doing consist of operational processes and that these processes are related to contracts and regulations. They have evaluated the use of smart contracts to model, organize and implement these processes and to maintain a provable reliable data history. They stated that smart contracts are executable code that runs on the blockchain. The definition of smart contracts defined as "a collection of computer protocols that verify, enforce, or enforce contract negotiation or performance, by automatically implementing the contractor's conditions, reducing the transaction costs associated with the contract, and hoping to provide better assurance than traditional paper-based contract management."

This study also emphasized that smart contracts operate on a blockchain supporting a digital currency and that they are used to build smart contracts, as an open source project which is called Ethereum. They pointed out that a smart contractor is mostly an automated device in the Ethereum blockchain that has an address and a balance and can send and receive transactions.

In the smart contracts at the base of the blockchain, there are a number of distributed authentication nodes that communicate and synchronize with each other over a high-speed peer-to-peer (P2P) network. There is a voting mechanism to keep each node consistent. In order to store the transaction states and save the results, the account block-chains are separated, and in case of a fault, there is a recovery mechanism to recover the transactions.

In the study, it is stated that there is a blockchain structure divided into three categories. These categories are trade blockchain (TBC), account blockchain (ABC) and message block chain (MBC). The trading blockchain (TBC) involves trading between nodes, and these transactions do not involve accountability. After the transactions are applied, updated information is sent to the account blockchain. The transactions in the account blockchain include accounting calculations and do not contain information on the trading block. If information about trade transactions included, it will send to the trade block.

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In the message block (MBC), messages are stored in the system. As all communications between the parties are recorded, they are used to ensure that system operations are restructured. Smart contracts on the Ethereum blockchain are recorded in a binary format called the Ethereum Virtual Machine (EVM) and execute bytecode.

Smart contracts write in high-level languages such as Solidity, Serpent, and LLL, and then compiled as bytecode to load the block string. The EVM bytecode consists of a series of bytes, and each byte represents an operation. In these operations, there is an index marker, and the index is incremented one step after each operation and is continuously processed.

The processes are in the current index until the execution of the code finished or an error occurs. This transaction requires a fee for each transaction, and the balance transactions for the transaction sender reduced substantially (Yu, et al., 2017). Alharby and Moorsel (2017) have studied the systematic mapping of smart contracts in their work. The focus of this study is the technical analysis of smart contracts. After the definition of the systematic mapping process, the relevant articles have been searched, and the smart contracts divided into technical classes. They concluded their studies by examining the results of the research. In the study, they distinguished the problems on coding issues, security problems, privacy problems, and performance problems.

Coding problems include the difficulty of writing correct smart contracts, the inability to modify or terminate smart contracts, the lack of support for describing unresolved smart contracts, and the complexity of programming languages. The suggested solution to these problems is to provide training with online trainers, establish a set of standards to modify or terminate smart contracts, using “Gasper” that provide smart contract model optimization which developed by Chen et al. (2017) and the use of logic-based programming languages. Security issues consist; transactional order leniency, time-wise dependency security breach, misunderstood exceptional security breach, penalties in smart contracting activities, and lack of reliable data feed (Oracle).

The solutions to these problems are:

- Randomly use block number instead of using time waveform,
- The use of a vehicle called “Oyente” developed by Luu et al. (2016) to prevent transaction openness,
- Use of a protective condition,
- The use of the solution Zhang et al. (2016) called “Town Crier” (Zhang, et al., 2016) acting as a reliable third party between smart contracts and external sources,
- The use of the Ethereum-based “SendIfReceived” command proposed by Natoli and Gramoli (Natoli and Gramoli, 2016).

Confidentiality issues consist of procedural confidentiality incompleteness and data incompleteness confidentiality. The use of the tool “Hawk” (Kosba et al., 2016), which allows writing confidentiality-protected smart contracts without requiring any encryption. The use of “Town Crier” and the encryption techniques also recommended. The problem of performance is the sequential execution of smart contracts. Parallel implementation of smart contracts proposed for solving this problem (Alharby & Moorsel, 2017). Caria (2017) study examined “the digital revolution in international trade, blockchain technologies, virtual currencies, international legal framework, challenges and opportunities” of smart contracts. This study examines the project case and the existing legal framework for the creation of smart contracts in the international trade called “Incochain” (De Caria, 2017).

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Uncitral (United Nations Commission on International Trade Law) has also dealt with a discussion on how smart contracts used in digital processes and the development of legal frameworks for how cryptographic money can help. There is a legally binding obligation between the parties to comply with that duty. The first of these obligations between the parties is to initiate the implementation of the smart contract. Despite the conceptual differences, there is not much difference between the operation of smart contracts and the software that suspends the provision of this service if a mechanical machine is functioning or service is concerned.

For example, Netflix allows users to watch videos streaming for a monthly payment legally. In the event that users' payments are incomplete, the software will suspend the service so that users will not be allowed to log in (De Caria, 2017). In the same way, if the obligations are not fulfilled in a smart contract, the transactions of the party that fails to fulfill the legal obligation will not be realized. There are cases where contractual provisions are not fulfilled legally in paper-based contracts, and parties have the freedom to apply to a court in disputes. In smart contracts, there is a new self-help mechanism that is contractual to ensure the performance of contracts without the need for judicial action.

All relevant legal questions arising from smart contracts can be handled by competent judges under the relevant contract law. It is clear that if smart contracts are not explicitly stated in applicable laws and competent jurisdictional disputes, significant problems will arise. However, smart contracts do not contain provisions that cannot be operated by the nature of the software and are not built with the intention of implementing a third party's code.

De Caria (2017), has stated that it may not be feasible to implement smart contracts in the international framework and that the use of digital processes to solve these problems would not be appropriate due to the fact that each country has its legal framework. Bartoletti and Pompianu (2017) have discussed that the BitCoin platform used to create smart contracts in the "An analysis of Bitcoin OP RETURN metadata" exercise can be implemented with the OP RETURN command. In the Bitcoin platform, the command OP RETURN examines whether or not the data loader has an adverse effect on the performance of the bitcoin network in relation to the primary target, indicating that it is possible to store random data in the blockchain with a particular instruction of the language of the block (Bartoletti & Pompianu, 2017). Watanabe et. al., (2015) created a consensus in blockchain technology to verify smart contracts using block chains in their work. They have established a new protocol using the technology that makes it possible for the contractor to confirm that the contractor's request for verification received and that the contracted document archived in the blockchain (Watanabe, et al., 2015).

Purchasing and selling contracts expressed as a number of contracts in the form of license contracts, and the records of the contracts copied on the computer can be changed during the recording and managing of the contracts. However, in the case of smart contracts created on the blockchain, it is impossible to change the consensus created because it is almost impossible to change the records.While transactions in crypto money transactions are one way between the sender and the receiver, these transactions are carried out bidirectionally with the approval of the two parties. Contracts are submitted for the approval of both parties.

The approval process becomes complicated by the involvement of three or more parties in the process. In smart contracts created by block-chains, transactions can be performed in one direction. The contract between the contracting party and the accepting party can automatically confirm itself. Contractual contractors are expected to archive their contract documents in contracts. However, even if some of the contract documents are in digital form, it is difficult to archive them for long without corruption and destruction.

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For this reason, smart contracts created on the blockchain are more straightforward to archive. In the study, a smart contract protocol was established on the blockchain presented to each contractor's consent. The protocol established on this note would ensure that the contractor would protect their privacy (Watanabe et al., 2015). Cuccuru (2017) study formed the smart contracts according to specific circumstances and conditions defined as the encoded protocol which implements a programmable computer itself. By examining the essential functions of smart contracts and their benefits for digital relationships, they have examined structurally constrained and decentralized structures (Cuccuru, 2017).

The finance sector and the banking sector have explored the reasons for representing smart contracts as the fastest testing platform. In smart contracts, it stated that contract rules are valid until reaching the specified goal when a process is started in the blockchain or until the end of consumed resources. Smart contracts can be programmed by adding accounts that external inputs are coming from reliable sources. For example, if the price reaches a certain threshold level, the sale or receipt of stocks may be included as a contract command in accordance with the contract protocol, or the algorithm may pay the seller autonomously after the purchased commodities delivered to the buyer.

The information required for these transactions can usually be provided by "oracles" and independent computer programs following the block-chain data such as the official stock market index or the carrier database. The recording of digital relationships in distributed ledgers reduces the risk of incompatibility problems that may arise between the parties who are entering into the agreement. This feature ensures accuracy and security in online trading. The risk of fraud that can occur online can be greatly reduced. Also, uncertainties about the temporal context of contracts are prevented.

Besides, particular advantages can be gained in terms of monitoring the results of digital agreements and reducing implementation costs in the course of executing smart contracts. Financial actors and banks also operate in an environment where inter-agency transactions are frequent, and interdependence is high. These collaborative platforms and full data exchange between organizations promoting the development of communication channels. Blockchains can, therefore, act as nodes of a conventional network of financial actors. Thus, they can create a new digital ecosystem where information, data, and digital values can be transferred efficiently, safely and transparently.

One of the most remarkable examples of the study done in this area is the R3 consortium project, which has gathered support from over 40 banks around the world. Although the project was in the experimental phase, in January 2016 the pilot application was successfully carried out, and five different blockchain applications tried. In addition, Nasdaq Link, a block-chain platform initiated by the stock market Nasdaq, allows private companies to sell digital representations of their shares without an intermediary in a closed market (Cuccuru, 2017). In the study of Tumminelli and Battle (2017) they proposed "smart contract model for agent societies". They have created a model of smart contract in this area by creating an open distribution chain scenario in which subcontracting services are offered (Tumminelli & Battle, 2017).

In heterogeneous agent societies, the approach implies that distributed ledgers are based on smart contracts that use a block-chain technology. The application of smart contracts over a chain of blocks ensures that representatives remain committed to contracts and to keep responsible for the provision of agreed services.

A new crypto money type and zero-cost cost Directed Acyclic Graph (DAG) technology, designed for the Internet of things (IoT), which does not use block-chain technology, represented by IOTA to manage financial transactions and smart contracts, with Bitcoin and Ethereum platforms specified in the study (Tumminelli & Battle, 2017). It is emphasized that this study is in the experimental phase and

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does not currently support smart contracts. By incorporating smart contracts into a block-chain process, it is ensured that blockchain members execute by comparing the results in parallel.

In the model suggested in the study, representatives who operate primarily on a specific area in the creation of a smart contract in a particular community register their assets in a service provider contract that will provide the notification service. Once the representative has issued the contract, the providers can submit a contract by registering themselves and transferring the required deposit. Winners and losers are notified. The contract governs the deposit and returns the remaining value of the contract to the customer representative and keeps it in the contractor's records. After the contract provisions fulfilled, a smart contract paid back to the supplier in return for payment. In this context, the Tumminelli & Battle (2017) study examines smart contracts written on the block-chain that create a business model and trust for service interchange among Agent Societies (Tumminelli & Battle, 2017).

SMART CONTRACT

Digitized computer code can represent any asset or property data and characteristics. Intangible assets, personal data, rights, licenses, work protocols and certificates can also be placed on a blockchain.

At the same time, the management of relations related to these entities can also be carried out through block-chain nodes. Cuccuru (2017) identify that these transactions are called Smart Contracts (SC) (Cuccuru, 2017). These contracts are the computer protocols to which the codified terms are automatically applied in which the predefined conditions are fulfilled by formalizing the elements of an association.

The application of smart contracts on a chain of blocks ensures that representatives remain committed to contracts and are held accountable for the provision of agreed services (Tumminelli & Battle, 2017). Smart contracts address the applications of business management, law and information technology with digital change, communication processes (Solarte-Vásquez & Nyman-Metcalf, 2017).

The concept of the mutually distrusting business network without the intercession and mediation authority by connected algorithms of the parties let a new era of legal regulations. Both regulators and financial intermediaries aim to identify the adaptation of these concepts. Evolution of block-chain will improve data transparency as the computational power increase.

The idea of smart contracts was first put forward by Nick Szabo in 1995 (Szabo, 1997). The purpose of these contracts is to provide superior security than traditional contracts. It is aimed to reduce the costs of transactions related to contracts (İnci & Alper, 2018). Szabo (1997) defines smart contracts as *"a computerized protocol that fulfills the requirements of a contractor"* (De Caria, 2017). Nick Szabo (1994) stated that smart contracts are *"a computerized transaction protocol that fulfills the requirements of a contractor."* (Szabo, 1994, https://archive.is/, 20.06.2018). Szabo (1997) defines smart contracts as "a computerized protocol that fulfills the requirements of a contractor" (De Caria, 2017). Also, Szabo (1994) identify that "A smart contract is a computerized transaction protocol that fulfills the requirements of a contract, and the critical goal of smart contract design is to meet common contractual conditions (such as Payment Terms, Privacy, and even Punishment), to minimize to exceptional (malicious and accidental) and reliable intermediary requirements" (https://archive.is/, 20.06.2018).

Smart contracts consist of developing applications that record data, add value to blocks, and execute code and calculations tasks (Karaaslan & Akbaş, 2017). The terms of the contracts and the assets to be transferred can be arithmetically encoded as an open source, common purpose and time stamped block sequence, and execution can be performed independently (O'Hara, 2017).

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Figure 1 shows the schematic of a decentralized cryptographic currency system with smart contracts.

In Figure 1, each contract assigned a unique name, and the code cannot be changed once it is placed in the contract blockchain. This process is carried out by the network of miners. The status of the contract is then updated accordingly.

There are two types of smart contracts. There are deterministic smart contracts and non-deterministic smart contracts (Alharby & Moorsel, 2017). While smart contracts that do not require any information from outside the blockchain when it is run are called deterministic smart contracts, smart contracts that flow information from outside the blockchain are also called non-deterministic smart contracts.

For example, a smart contract that requires the operation of current weather information that is not in the block-chain is called a non-deterministic smart contract (Alharby & Moorsel, 2017). Figure 2 shows the working system of smart contracts.

Essential elements of the smart contracts are (https://medium.com, 05.07.2018):

- A computer code block in which logical flows are pre-written (i.e., “if this is the case” flows)
- Stored and duplicated on a scattered, decentralized platform (i.e., blockchain)
- Operated by a computer network (i.e., machines running blockchain)
- Reliability verified by a computer network (i.e., blockchain)
- Which can lead to updates on the building/platform it is on (i.e., crypto money payments/transfers, the creation of new smart contracts).

Smart Contracts Platforms

Smart contracts are contracts that automatically apply the terms of the contract, reduce the transaction costs associated with the contract, and provide better assurance than traditional paper-based contract management. Smart contracts are a collection of computer protocols running on a blockchain that supports a digital currency. Ethereum, an open source project, supports smart contracts. Smart contracts

Figure 1. Smart contract system (Delmolino, et all., 2016)

Source: Delmolino, K., Arnett, M., Kosba, A., Miller, A., & Shi, E. (2016). “Step by Step Towards Creating a Safe Smart Contract: Lessons and Insights from a Cryptocurrency Lab”. J. Clark, S. Meiklejon, P. Ryan, D. Wallach, M. Brenner, & K. Rohloff, Financial Cryptography and Data Security, Springer, p:81.

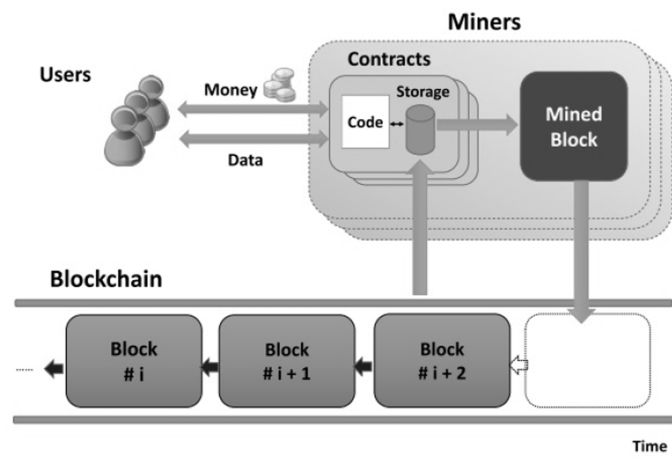

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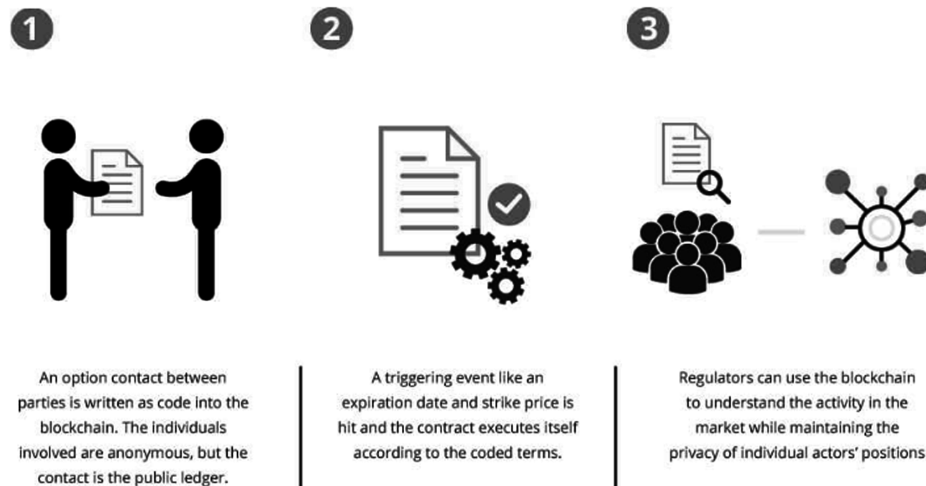
Figure 2. Smart contracts working system (https://www.devteam.space/, 20.06.2018)
Source: https://www.devteam.space/blog/5-best-smart-contract-platforms-for-2018/, 20.06.2018.



are an automated tool that can send and receive coded transactions in the Ethereum blockchain. Rules in smart contracts are made by different parties who sign contracts in the form of traditional contracts. Smart contracts are stored in a binary format called the Ethereum Virtual Machine on the blockchain and processed with the bytecode. Smart contracts are written in high-level programming languages such as Solidity, Serpent, LLL, and then compiled into bytecode to be loaded into the blockchain (Yu, and et al., 2017). Table 1 shows a few of the platforms used to build smart contracts.

Some of the features of smart contract platforms can be expressed as follows (Alharby & Moorsel, 2017 and Bartoletti & Pompianu, 2017, arXiv.org, 20.06.2018):

- **Bitcoin Platform:** The Bitcoin platform is a publicly available blockchain platform that can be used to perform crypto-currency transactions, but with limited processing capability. The Bitcoin-Script block is written on a chain machine and used with a batch-based bytecode script and the Balzac or Ivy programming language.The ability to create smart contracts using the Bitcoin scripting language is limited (Lewis, https://bitsonblocks.net/, 22.06.2018). The Bitcoin platform allows the recording of metadata in the blockchain with a particular case of the script language called OP RETURN (Bartoletti & Pompianu, 2017). In a study by Bartoletti and Pompianu (2017), they analyzed the use of OP RETURN across the bitcoin blockchain. 1,887,708 OP RETURN transactions have been performed, and they have examined which protocols they belong to this platform. As a result of these examinations, 22 different protocols were detected. In these transactions, they found that 15% of the totals are empty transactions without adding metadata for OP RETURN command. In the OP RETURN command, the data storage limit is initially set at 80 bytes. Bitcoin OP RETURN 0.9.0 permits a 40-byte boundary. Then the 0.10.0 version and 0.11.0 version were implemented, and the data storage limit was increased to 80 bytes. In the 0.12.0 version, this limit can be increased to 83 basis points (Bartoletti & Pompianu, 2017).

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Table 1. Platforms of smart contracts

Platform Name	Engine	Contract Language	Live	Origin	Inc. in	Est.	Pub. rel.
Bitcoin	Bitcoin Script	Ivy-dili, Balzac	Yes	USD	USA	2017.12	2017.12
BitShares	?	?	Yes				
Byteball	Byteball	JSON	Yes	RU		2016.12	2016.12
Cardano	?	Plutus (Haskell inspired)	No	HK	Switzerland	2015	
Counterparty	?	?	Yes				
Corda	?						
DFINITY	EVM?	Ethereum compatible (aka Solidity, Serpent, etc.)	No				
EOS	EVM/ eWASM	C/C++ (compiles to WASM)	Yes				2018.06
Ethereum	EVM	Solidity	Yes	CA	Switzerland	2014.04	2015.07
Ethereum Classic	EVM	Solidity	Yes	CA		2014.04	2015.07
Exonum	?	Rust,Java bindings TBD	No	UA	Netherlands		2017.07
Hyperledger	Sandbox	?	?				
Lisk	N/A	Javascript					
Nem	Offchiain	?	?				
Neo	NeoVM	1st batch: dotNET; 2nd: Java, Kotlin; 3rd: C, C++, GO, Py, JS (TBD)	Yes	China	China	2014.06	2016.10
Neblia	?	REST-API, Python, JS, .NET(C# ve VB.NET), Objective-C, Java, Node, js., GO,PHP	Yes	USD	USD	2017.01	2017.07
NXT	?	?	Yes				
OmniLayer	?						
Qtum	EVM	Solidity	Yes	Singapore	Singapore	2016	2017.09
Quorum	?	?	?				
Radix	?	Scrypto (Based on JavaScript/TypeScript)	Yes	UK		2018	
Rootstack	EVM	Solidity	No	Argentina	Arjgentina	2015.11	
Tezos	?	Michelson	No				
Ubiq	EVM	Solidity	Yes	CA	CA?		2017.01
Universa	?						
Urbit	?	Hoon	Yes				
Waves	?	NA	Yes	RU		2016	2016.11

Source: https://github.com/Overtorment/awesome-smart-contracts, 20.06.2018.

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Figure 3 shows the general form for processing on the Bitcoin platform and the encoding of operations with the OP RETURN command.

The general form is displayed in Figure 3a. First, there can be multiple inputs and outputs (denoted with array notation in the figure), and each output has its own out-script and value. Since each output can be redeemed independently, in fields must specify which one they are redeeming (T0[n0] in the figure). The OP RETURN instruction allows to save metadata on the blockchain, as shown in Figure 3b. (Bartoletti & Pompianu, 2017: 220-221).

- **NXT Platform:** It is a public platform where smart contracts are offered as templates (Lewis, https://bitsonblocks.net/, 22.06.2018). This platform only allows the development of smart contracts using these templates. The templates given on this platform are limited, and no other code can be written (https://bitcoinlerim.com/, 22.06.2018). Turing-complete is a structure that does not allow the creation of customized smart contracts due to lack of script.
- **Ethereum Platform:** Distributed ledger technology such as Etherium-based platforms creates a new institutional technology and bring out collaborative economies. This digital innovation will also shape trade infrastructure and has an impact on financial networks globally. Because of decentralization, there are also risks and opportunities for financial intermediaries such as banks. Potential applications most likely impact on financial markets and financial intermediaries. Ethereum is an open platform for the public, so it is a platform frequently used in the creation of smart contracts. In addition, this platform is one of the most advanced platforms developed for encoding and processing smart contracts (https://bitcoinlerim.com/, 22.06.2018).

It is a platform for writing customized smart contracts developed with the help of Turing-complete programming. The code for Ethereum smart contracts is written in byte code language and is run on the Etherium Virtual Machine (EVM). Ethereum used with Solidity, Serpent, LLL from several high-level programming languages to write smart contracts. The codes of these programming languages can be compiled into the EVM bytecodes to be executed later (Alharby & Moorsel, 2017). Specifically, the Solidity programming language is an object-oriented programming language used to write smart contracts. Solidity programming language Ethereum has been developed by former developers Gain Wood,

Figure 3. Coding of Bitcoin Platform (Bartoletti and Pompianu, 2017)

Source: Bartoletti, M., & Pompianu, L. (2017). "An Analysis of Bitcoin OP RETURN metadata". J. Clark, S. Meiklejon, P. Y. Ryan, D. Wallach, M. Brenner, & K. Rohloff içinde, Financial Cryptography and Data Security, Springer, s: 220.

T
in[0]: $T_0[n_0]$ in-script[0]: $\cdots$
$\vdots$
out-script[0](T'_0, w_0): $\cdots$ value[0]: v_0
$\vdots$
lockTime: s

(a) General form of transactions.

T
in[0]: ... in-script[0]: ...
$\vdots$
out-script[0](...): OP_RETURN "*EWHello*!" value[0]: 0
$\vdots$

(b) An OP_RETURN transaction.

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Christian Reitwiessner, Alex Beregszaszi and Yoichi Hirai and provides for the signing of smart contracts on Ethereum platforms. This programming language is a statically written programming language built for the development of smart contracts in the Ethereum Virtual Machine (EVM). The bytecode that can be executed in EVM can be compiled as a code (İnci & Alper, 2018).

Everything need to create as a smart contract on the Ethereum platform can be coded, but the user has to pay for computing power with Ethereum tokens (ETH) (https://bitcoinlerim.com/, 22.06.2018). Users build smart contracts and can make their functions work by submitting transactions to the blockchain approved by the network. Both the users and the smart contract created can save money with command processing and send or receive Ethereum (ETH) to other contracts or users (Bartoletti & Pompianu, 2017, arXiv.org, 20.06.2018).

- **Counterparty Platform:** Since this platform does not have its own blockchain, it is constructed with Bitcoin blockchain. If Bitcoin network consortium data ignored by the bitcoin network, it can be recognized and interpreted by nodes of the opposite side. The smart contracts created on this platform have their currency that can be spent to enable the counterparty to execute or transfer smart contracts. Unlike smart contracts created on the Ethereum platform, network nodes do not charge fees to run contracts, users are charged for fees, and nodes are rewarded with currency inflation. This mechanism is called proof-of-burn (Bartoletti & Pompianu, 2017, arXiv.org, 20.06.2018).
- **Monax Platform:** This platform supports the execution of Ethereum smart contracts without having their currency. This platform allows users to create custom blocking lists and grant authorization for their access. In this platform, a network consensus occurs when a user creates a new process block, and other users approve of this block. When a consensus block in this way is not acknowledged, the smart contract protocol forwarded to the next network, where another user is responsible for providing a new blockchain.

A block created on this platform approved by a total of 2/3 of votes cast by users (Bartoletti & Pompianu, 2017, arXiv.org, 20.06.2018). The Monax platform is freely available software that allows anyone to create interactive applications using EVM, one of the public blockchain and smart contract technology (Sener & Uçak, 2017).

- **Lisk Platform:** This platform is a public block with its currency which is written on a chain. The platform has the authority to produce 101 active delegate block chains, each of which is selected by the stakeholders. Each smart contract is carried out separately.To avoid double spending, the user can transfer and withdraw money from another counter. Contract owners can choose which nodes can participate in the reconciliation mechanism by customizing them before distributing their contracts (Bartoletti & Pompianu, 2017, arXiv.org, 20.06.2018).
- **Ripple Platform:** It is a block-chain platform where smart contracts are built into real-time payment systems by offering enterprise-level smart contract solutions to banking and financial institutions. Decentralized applications are a platform to be used with fast, secure payments. The Codius platform, created by the Ripple team, ensures that the block chains work in harmony with each other. Smart contracts created on the Codius platform are built using programming languages such as C++, Java, JavaScript, and C# (http://koinplatform.com/, 22.06.2018).

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- **Hyperledger Platform:** It is a platform managed by the Linux Foundation that contains sizeable open source projects like 'Fabric' and 'SawtoothLake' (Sener & Uçak, 2017). This platform has more than 100 corporate members who finance the platform. The 'Fabric' open source project is a block of code written in GO programming language with a smart contract feature (Sener & Uçak, 2017: 11).
- **Stellar Platform:** It is a block chain platform in which a publicly-coded smart contract is created by a reconciliation algorithm that has its own cryptographic currency and is inspired by the Byzantine agreement. No special programming language is needed to create smart contracts. In smart contracts created on the Stellar platform, users have accounts called multiple signatures that can be handled by multiple users. There must be a consensus among users to be able to carry out transactions between these accounts. These calculations can be combined to form complex smart contracts (Bartoletti & Pompianu, 2017, arXiv.org, 20.06.2018).
- **Multichain Platform:** It is a platform used by organizations to create and encode private block chains within and between organizations. It is used for asset management.

Smart Contracts Applications

The first application of smart contracts is the Ethereum platform (Bartoletti & Pompianu, 2017, arXiv.org, 20.06.2018), a platform on which the Turing-complete programming language is built. Ethereum contracts are encoded with the Solidity programming language, a high-level programming language similar to Javascript, which compiles the Ethereum Virtual Machine (EVM).

The first smart contract is The DAO (Inci & Alper, 2018), a decentralized and autonomous entity that works on the Ethereum platform and was established in May 2016 with a credit of US $ 250 million. About $ 50 million was lost due to a programming error in this DAO contract (Bartoletti & Pompianu, 2017, arXiv.org, 20.06.2018).

İnci ve Alper'in (2018) indicate that Jerry Cuomo, Vice President of Block Chain Technologies at IBM, states that smart contracts can be used in many areas, from financial services to health insurance. In this concept distributed ledger technology securely recording information, non-centralized spread that data and record the results of all transaction. Scripting languages let users create the smart contract, and both parties define their transactions. Scripting languages can identify control of transactions, name registration, anonymity, and particular specification of contract. Distributed ledgers also let the user transform payments and settlement process. For the financial environment, these ledgers mainly adopted funds transfer, security settlements, commodity exchanges, and clearing derivative instruments. Main elements that help to use smart contracts are that they have capable of distributed data storage with cryptography including peer-to-peer networking. This capability also changes the data storage, recordkeeping and digital assets transfer protocols. The areas of use of smart contracts can be classified as follows (İnci & Alper, 2018, Bartoletti & Pompianu, 2017):

- **Management Area:** Smart contracts created on a block of chain network eliminates troubles in communication processes through workflows, accuracy, transparency and an automatic system, and processes with blockchain ledger are implemented. It also ensures that costly litigation and inconsistencies that may arise in the process of independent transactions are eliminated.

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- **Supply Chain:** As the procurement of supply chain processes is approved through forms, it is expected that forms will be lost or fraudulent during this process. However, with smart contracts created in blockchain systems, a reliable and digitized process is presented to all users.
- **Real Estate Transactions:** With smart contracts created in real estate transactions, the elimination of the intermediary institution is saving costs and speeding up transactions.
- **Health Services:** Personal health records can be coded and stored in digital books. In addition, smart contracts are used to prevent corruption in the purchase and operation costs of devices used in health services. It can be carried out reliably in processes such as checking, compliance, and testing of drugs encoded in digital books.
- **Asset Management:** It is a smart contract to write the value of the asset, the amount of the asset transferred and the information of the new property owners.
- **Notary Protocols:** Smart contract applications where the appropriateness of the ownership and legal structure of a document is involved.
- **Digital Arts:** Contains smart contracts related to the sharing and entitlement of digital arts such as photography and music.

If the examples of smart contract examined, it is seen that many new services can be produced. Github (https://github.com), a web-based storage service for software development projects, has 7,400 smart contract projects in its website. Of these projects, 2,955 were built with the JavaScript programming language, 79 were in the Solidity programming language, 215 were in the HTML language, 203 were in the Python language, 83 were in the Java language, 81 in the GO language, 81 in the TypeScript language, 78 in the C# language, 51 in the Shell language and 46 of them are built in C++ programming languages (https://github.com/, 05.07.2018). As an example 1, a rather simplified smart contract involving a consignment structure for a simple shopping flow on Ethereum can be defined as (https://fintechistanbul.org/, 05.07.2018);

As an example 3, this contract is started by first creating an array containing all the references to the operations. Then the contract is initiated with the initial supply documents to the contractor's creator. All the tokens are given to create a contract with successive commands. It is then checked whether the sender of the cryptography has an adequate care in accordance with the contract. The sender pulls the amount and ends the transaction by adding the same amount to the buyer (https://bitcoinlerim.com/, 05.07.2018).

Advantages and Limitations of Smart Contracts

Smart contracts provide many benefits to users compared to traditional contracts. The benefits of smart contracts are addressed in different ways in the literature. Categories of autonomy, trust, backup, security, speed, saving and accuracy can be obtained if the benefits of smart contracts gathered under the main headings. These headings can be handled as follows (https://bitcoinlerim.com/, 05.07.2018):

- **Autonomy:** User is the person making the contract; it is not necessary to rely on an intermediary, lawyer or other intermediaries to approve. In the meantime, this also raises the danger of manipulation by a third party, because execution is automatically managed by the network, not by one or more, possibly biased, people who may be at fault.
- **Trust:** User documents are encrypted in a shared notebook.

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Figure 4. Example 1 (https://fintechistanbul.org/, 05.07.2018)
Source: https://fintechistanbul.org/2016/11/08/cok-akilli-sozlesmeler-smart-contracts/. (05.07.2018).

```
1.   Contract deposit {
2.   // contractual parties
3.   address buyer;
4.   address seller;
5.   address tool;
6.
7.   //In this simple example, the sender of the money is creating the
     buyer and the buyer of the contract
8.   function deposit (adress_tool, adress_seller) {
9.   receiver=msg.sender;
10.  tool=_tool;
11.  seller=_seller;
12.  }
13.
14.  // successful completion of sales process
15.  funciton complete () {
16.  if (msg.sender ==tool) {
17.  selfdestruct(seller); // redirect the entire contract account to the
     vendor
18.  } else {
19.  throw;
20.   }
21.  }
22.
23.  //cancellation of sales transaction
24.  function cancel () {
25.  if (msg.sender==tool) {
26.  selfdestruct (buyer); // cancel the escrow flow and send the entire
     contract account to the buyer
27.  } else {
28.   throw;
29.     }
30.   }
31.  }
```

Figure 5. Example 2 GavCoin crypto money sending (İnci & Alper, 2018)
Source: İnci, S., & Alper, İ. (2018). Bitcoin Devrimi Değişen Dünya Ekonomisinde Kripto Para Sistemi, Blockchain, Altcoinler. Ankara: Elma Yayınevi, p: 51-52.

```
1.   contract GavCoin
2.   {
3.   mapping(address=>uint)balances;
4.   uint constant totalCoins=100000000000;
5.   ///Endows creator of contract with 1m GAV.
6.   function GavCoin(){
7.   balances[msg.sender]=totalCoins;
8.   }
9.   ///Send $((valueInmGAV / 1000). Fixed (0,3)) GAV from the
     account of $ (message.caller.adress ()), to an acoount accesible
     only by $ (to.adress ()).
10.  function send (adress to, uint256 valueInmGAV) {
11.  if (balances[msg.sender]>=valueInmGAV) {
12.  balances [to]+=valueInmGAV;
13.  balances[msg.sender]-=valueInmGAV;
14.  }
15.  }
16.  /// getter function fort he balance
17.  function balance (address who) constant returns (uint256
     balanceInmGAV){
18.  balanceInmGAV=balances [who];
19.  }
20.  }
```


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Figure 6. Example 3 (https://bitcoinlerim.com/, 05.07.2018)
Source: https://bitcoinlerim.com/smart-contracts-akilli-sozlesmeler-nedir/. (22.06.2018).

```
contract MyToken {
mapping (address => uint256) public balanceOf;
function MyToken(
uint256 initialSupply
) {
balanceOf[msg.sender] = initialSupply;
}
/ Send coins */
function transfer(address _to, uint256 _value) {
require(balanceOf[msg.sender] >= _value);
require(balanceOf[_to] + _value >= balanceOf[_to]);
balanceOf[msg.sender] -= _value;
balanceOf[_to] += _value;
}
```

- **Backup:** In the blockchain, each one of the participants takes care of user account. User documents are duplicated many times. The Blockchain sub-structure allows a user to back up the same documents multiple times.
- **Security:** Cryptography, used in the cryptography of websites, keeps user documents secure. Smart contracts are encrypted and distributed across different networks. This feature also prevents it from disappearing and changing without permission.
- **Speed:** User generally has to waste time and paper to process documents manually. Smart contracts use software code to automate tasks, so the user has time in various business processes.
- **Savings:** Smart contracts save money that paid to an agent and mediator. For example, in order to witness a transaction, traditional contract owner have to pay a notary, but smart contract owner does not require a notary. Most of the processes are automated.
- **Accuracy:** Automated contracts are not only quick and inexpensive, but they also correct errors caused by manual form filling.

In addition to the benefits of smart contracts, there are various restrictions. These constraints are included in the problems that will arise in the financial situations required to be developed together with the necessity of advanced programming language knowledge used in the creation of contracts. Yu et. all. (2017) reviewed these constraints under 3 main headings. A smart contract approach may not be appropriate for contracts that have a long contract life due to the following reasons (Yu, et al., 2017):

- **High Execution Cost:** Contracts are written in a high-level complexity and then compiled with the bytecode that needs to be executed, and each transaction requires a fee. For this reason, contracts with many operations will be subject to a high fee.
- **The Deceleration in Building Blocks:** When a node processes operations to enable smart contracts, it will enable and run these smart contracts one after the other. This situation will slow down the process and block creation.

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- **The Decrease in Process Acknowledgment:** When a process added to a block, it means that the majority of the nodes is handling the process. However, like creating a new block, each node gets a block, and the operations in the block must process one after the other. This process is an essential time for contracts.

In another study, these problems are expressed as follows (https://cryptoturkiye.com/, 05.07.2018):

- **Human Factor:** Codes are written by humans, and human errors can be made. The smart contract cannot be changed if it is installed in Blockchain. DAO (Data Access Objects) is one of the best examples of human error. The only error that developers of the template made in the code were that hackers stealing about $ 60 million using this error had harmed both the users and the company.
- **Uncertain Legal Situation:** Any government does not regulate smart contracts at present. Problems may arise if state agencies decide to make a legal regulation on smart contracts.
- **Application Cost:** Smart contracts cannot be used without programming. It is imperative to use intelligent coders to make smart contracts that do not contain errors and to pass on the internal structure of the companies to the Blockchain.

SOLUTIONS AND RECOMMENDATIONS

The use of developing technological processes and the creation of smart contracts show that problems may arise in the implementation of the international legal frameworks of different international nations. The applicability of smart contract codes, which are different from each other in the legal frameworks of the nations but complying with international legal rules, is valid on the blockchain.

It is also thought that these problems can be solved through online training and applications when faced with the problem of knowing the advanced programming languages used in the creation of smart contracts among the contracting parties.

FUTURE RESEARCH DIRECTIONS

It is thought that in the researches investigated, digital processes will be actively involved in the system and that the application areas of smart contracts will increase. The application of smart contracts, called Ethereum 3.0 application, which is formed by Bitcoin crypto money concept and based on blockchain technology, is applied in real estate, health management, notarial processing, finance and banking sectors and digital arts usage while insurance sector, airway transportation, and it is also thought that applicability in tourism areas should be examined.

With the use of blockchain technology, it is necessary to create smart contracts that create added value and make life easier in health, culture, art and all other fields. When the literature is examined, it is considered that the essential features of smart contracts should be emphasized rather than the studies on which smart contracts are encoded and generated.

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CONCLUSION

The widespread use of crypto money, an innovation, seems to provide transparent, reliable and accurate information on smart contracts between the parties. Smart contracts offer many benefits such as speed and cost savings for users, along with the encoding and encoding of digitized agreements. In order to be among the developed and developing societies, it is necessary to follow innovations and adapt them to these processes. Smart contracts can be used to regulate the relationship between the parties while preventing legal obligation.

Smart contracts created by digital programming also eliminate problems as they can automatically run on the blockchain. Smart contracts established without the necessity of an intermediary or a third party are sufficient for the approval of these contracts. Smart contracts created with blockchain technology can provide parties with clear key codes and wallets that are encrypted to the parties, allowing the parties to manage their own processes. Furthermore, the fact that contracts between the parties cannot be examined and changed by other parties that do not have open keys can be useful in preventing manipulations.

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KEY TERMS AND DEFINITIONS

Bitcoin Platform: The Bitcoin platform is a publicly available blockchain platform that can be used to perform crypto-currency transactions, but with limited processing capability.

Ethereum Platform: It is a platform for writing customized smart contracts developed with the help of Turing-complete programming.

Ethereum Virtual Machine (EVM): Ethereum Virtual Machine (EVM) is a virtual machine written by Ethereum smart contracts.

Smart Contract: A contract consisting of numerical computer code representing any entity or attribute data and properties.

Solidity Programming Language: Solidity programming language is a statically written programming language built for the development of smart contracts in the Ethereum Virtual Machine (EVM).

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Chapter 7
Financial Innovation:
Theories, Models, and Future

Murat Akkaya
T. C. İstanbul Arel University, Turkey

ABSTRACT

Financial innovation offers cheaper and available services to financial system and it increases quality of service and products in a long run. The functions of financial innovation are decrease in the cost of payments and increase in the speed of determination of fraud, mechanism for the pooling of funds, management of uncertainty and controlling of risk, manages agency costs, and enhancement of liquidity. Technology contributes to the design and pricing of new instruments and facilitates the identification, measurement, and monitoring of risks in portfolios containing complex instruments. Innovation research has shown that the increase in countries' innovation performance plays a key role in economic and social development, prosperity, and development. Financial innovation is the most important driving force for the transition to the information economy. Globalization and global competition require innovation. Hence, the future is mobile and should be innovative.

INTRODUCTION

One of the most important characteristics of human beings throughout history is that they are not satisfied with what they find, but they long for better. The foundation of creativity and continual development is also creating a better search impulse. Companies are always yearning for the better in the world. In addition to feeling better, companies under the influence of very rapid changes in internal and external environmental conditions are trying to meet the requirements of competition while trying to adapt to the changing trends.

It can be said that there is more competitive environment for firms in the phenomenon of globalization. The most important factor affecting the competitiveness of today's enterprises is the continuous and sustainable productivity increase due to innovation. Companies using innovations, new products or services will increase their operational efficiency and profitability. The success of firms in a competitive environment and in changing world conditions is driven by their ability to perceive and innovate these innovations and creativity.

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Recently, companies are increasingly focusing on innovation. This is because they will gain a competitive advantage through differentiation. Indeed companies developing innovative products or services have the advantage and they are becoming more advantageous in the face of competition.

Innovation gives companies the chance to adapt to the environment they are in. Also more importantly it allows them to identify and control change in the external environment, which is crucial for the operator to achieve long-term competitiveness. Innovation can achieve firm's short term outputs such as increased financial performance and market share, creation of new markets, reduction of production costs.

However, when viewed from a broader perspective, innovation is one of the means by which the level of prosperity and standard of living of society can be improved. With the innovations realized, many environmental problems can be solved and users can raise their living standards by using products that are more affordable and meet their needs better. Moreover it can solve some social problems, especially health-related problems. Thus it can have a positive impact on human life.

INNOVATION

Innovation is one of the most recent words used in science and technology in recent years. Innovation is derived from the Latin "innovare" that means "to do something new and different". Innovation means "renewing science and technology to provide economic and social benefit".

The innovation derived from Latin word 'innovatus', means "the introduction of new methods in the social, cultural and administrative environment". The Webster dictionary defines innovation as a 'new and different result'. In this context, innovation can be defined as new ideas, new applications, new solutions and new technologies for a business (Jenssen & Jorgensen, 2004: 63).

Innovation as a new and contemporary concept, is emphasized in terms of dictionary, as well as innovation itself; refers to an economic and social process depending on differentiation and change. Innovation is first described by economist and policy scientist Joseph Schumpeter as the "driving force of development". Schumpeter describes innovation as having a new organization to have a new product of a product or an existing product that the customer does not already know, the introduction of a new production method, the opening of a new market, introduction of raw materials or semi-finished products. (Elçi et al., 2008: 25-26).

According to the OECD literature, innovation means 'transforming an idea into a marketable product or service, a new or improved manufacturing or distribution method, or a new method of social service'. Innovation is both a process and a consequence (Oslo Manual, 2005).

In a rapidly changing competitive environment, companies need to constantly change and renew their products, services and production methods to enable businesses to survive and to retain their assets. This replacement and renewal process is defined as "innovation".

Today, enterprises are at the center of the innovation process. The productivity and competitive structures of the enterprises are determined by their business competencies and their technological expertise. Firms that are the source of economic growth in the market are developing new technologies. Technological innovations lay the groundwork for new technological developments within these enterprises. In this context, reasons forcing firms to innovate in a changing competitive environment are listed below (Dulupçu et al., 2007: 8):

- Speed to respond to market needs.

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- Product and service quality.
- Development of new products and services, shortening of product life.
- Product and service development according to consumer demands.
- The need for new management models.

Notion Pertinent to Innovation

Creativity

The starting point of innovation is creativity. Creativity is the ability to create new ideas or bring new perspectives to existing ideas. The skills needed to create new ideas and the skills needed to implement them are different. There is a need for creative and innovative staff to make new ideas available. Creative ideas do not create value for the enterprise and do not make sense unless they are put into practice. In this respect, the innovation process in the business needs to include creativity and innovativeness (Durna, 2002: 8).

Creativity and innovation are two concepts that can complement each other. New ideas that can be put forward by creativity can be used for enterprises in the process of innovation and become sustainable knowledge.

Alteration

Alteration can be expressed in the form of an unplanned system, a process or an environment, in a planned state or in a state other than the existing state (Durna, 2002: 9)

Companies need to leverage innovation and adapt to change so that they can use organizational knowledge. When change and innovation are used interactively, it will be possible for enterprises to be able to fight and stand out in front of their competitors in a highly competitive environment.

Technology

Technology plays a crucial role in innovation. The encounter with the new technology and its application of new technology also necessitate achievement of innovation in the organizational dimension. If the companye can not achieve technological change by innovating in structural and physical equipment, it will not be possible to achieve efficiency (Cumming, 1998: 24).

In order for technological development to be meaningful from an economic point of view, it is necessary to transform the technological development into innovation without considering the profit or loss (Kibritçioğlu, 2005).

Research and Development (R & D)

Innovative organizational structures have competitive advantages to utilize R & D activities both in good and service production and in improving production processes in an intense competitive environment.

R & D is not only an activity used in production and technological innovation, but also an activity that should be used in the transformation processes of organizational structures adapted to changing environmental conditions and service design processes to meet changing customer needs (Cumming, 1998: 27).

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Table 1. Innovation resources

Internal Innovation Resources	External Innovation Resources
Unexpected developments	Changes in demographic structure
Inconsistencies	Changes in perception
Process requirements	New information
Changes in sector and market structure	

Source: Demirci, 2007

Innovation Resources

It is possible to examine the resources of innovations as two sources: internal and external as shown in Table 1.

Customer understanding, globalization, process requirement and changes in market structure are also inner factors of innovation.

Innovation Types

There are different classifications in the literature regarding innovation. When these classifications are made, sometimes the value of the innovation is taken into account for the frequency, grade or operation. At times, it is seen that a classification is made by taking the results of innovations or system.

Innovation classifications are shown in Table 2.

The types of innovation in the literature are defined quite broadly. It is possible to examine them under nine general headings (Vıcır, 2007). These headings can be listed as follows:

1. Progressive and Radical Innovations
2. Product and Process Innovations
3. Service Innovations
4. Sector-Building Innovations
5. Performance-Enhancing Innovations
6. Technological Reorganization
7. Brand Innovations
8. Design Innovations
9. Packaging Innovations

Table 2. Innovation types

By the system	By priority focus	By Result / Effect
Programmed	Product innovations	Progressive innovations
Unprogrammed	Process innovations	Radical innovations
	Organizational structure innovations	Implementation innovations
	Human Capital innovations	Technical innovations

Source: Güleş & Bülbül, 2003.

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Factors Affecting Innovation Level

There are many important factors that influence the level of innovation of an enterprise. These factors can be evaluated in two main categories; internal and external (Savaş, 2015)

- **Internal Factors Affecting Innovation Level:** The organizational and cultural structure of the enterprises has significant effects on innovation. The internal factors that influence the level of innovation of the enterprises are the knowledge (both market and technically), the technological infrastructure, the training given to the employees.
- **External Factors Affecting Innovation Level:** Beside the internal factors, some non-business factors also have important effects on the level of innovation. These factors can be expressed in terms of technological opportunities, knowledge and diffusion to be achieved, competitive structure of the market, environmental uncertainty.

Innovation Process

Andrew et al., (2009: 14-18) defines the main forces influencing the success of innovation practices; creation of ideas (an important and early stage of the innovation process), an effective process by which ideas can be transformed into products, leadership who will encourage innovation and transform innovation into an organizational culture and talented employees. They also state that these forces must be supported by governments.

Furthermore the process of innovation consists of two main phases: the creation and intruduction of ideas and the adoption of ideas (Knight, 1967: 480). Becker and Whisler (1967) have devised the innovation process in four steps:

1. the emergence of innovation triggers,
2. the conceptualization of the idea,
3. the formal submission to other individuals in the ideological organization,
4. the rejection or adoption of ideas.

The objectives of the innovation process in an enterprise can be listed as follows (Kuczmarski et al., 2000: 141):

1. Providing structural attitudes for systematic and continuous creative innovations,
2. Describe environmental and legal possibilities and identify ideas that can lead innovation,
3. Identifying financial and strategic objectives for improving the innovation effectiveness of the business.

The formation process of innovation can be examined in five stages in general, including the creation of the idea of innovation, the development of the idea of innovation, the evaluation of the process, the application / production of the idea, and the commercialization of the product or service.

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Innovation Strategies

Companies can increase their sustainable competitive advantage with innovation strategies. They can change their innovation strategies they choose in accordance with the changing internal and external environmental conditions. Moreover, they can apply more than one strategy. Innovation strategies are classified differently by different authors as stated in the concept of innovation. Freeman's innovation strategies are stated below (Güleş et al., 2003):

- Offensive
- Defensive
- Imitator
- Dependent
- Traditional
- Opportunist

FINANCIAL INNOVATION

There has been a great transformation in the world with the great discoveries and the rapid developments in technology from the 1970s to the present day. These changes have great effects in finance, too. Progress in the field of technology has brought the globalization of the world. Globalization in the last thirty years affected many things in business life and world. Financial products have multiplied and diversified by globalization.

Financial innovation is nowadays an important characteristic of financial systems. The evolution of financial systems increased globalization of financial markets, growth of financial innovation, and also particularly the development of new instruments and credit derivatives. By the globalization of financial markets, financial innovation generated in one market can be easily and quickly transferred to others. Thus, innovations in the financial system have gained importance (Anderloni et al., 2009).

Financial innovation is not just a development of modern capitalism. It is accepted that financial innovations have existed for thousands of years. Paper money has been offered in China in the 9th century. In the golden age of Venice, deposit checks and bills of exchange emerged (Goetzmann & Rouwenhorst, 2005). More importantly, the premise of many sophisticated products such as derivatives and securitization can be observed in the 17th century Dutch financial markets. People witnessed tremendous developments in 20th-century financial practices. The new wave of financial innovation has emerged since 1970s in line with technological developments and rapid structural changes. Financial innovations first appeared in developed financial markets of the world.

Financial innovation can be defined as a product or process resulting from non-complete and/or inefficient financial markets (Van Horne, 1985: 622). Also, Jacque (2001) states that financial innovations are developments in the national and international financial markets that improve the operational effectiveness of the financial system by reducing transaction risk and/or transaction costs on primary and secondary markets where financial instruments are involved.

Financial innovations are changing functions and the new solutions and developments in financial markets, financial institutions, financial instruments and regulations. Financial institutions create the new instruments traded in the new financial markets. The formation of new instruments and establish-

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ment of the new markets lead to financial innovation (Blach, 2011). Tufano (2003) defines financial innovation as the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions and markets. According to Frame and White (2004), financial innovation refers to new things that reduce costs and risks and allow for the development of financial products (services / instruments). Financial innovation covers improvement of new financial methods, establishment of new financial institutions, changes in legislation, financial supervision, business processes. It also covers changes in services such as new deposits and loan products, derivative instruments, insurance and investment products (Achieng et al., 2015).

Incomplete markets, principle-agent problems, asymmetric information problems, legal regulations, tax rates and volatility in macro variables and asset prices are driving forces of financial innovations. Most of the efforts to explain financial innovations are based on either theoretical models, or descriptive approaches. The view that financial innovation plays a important role in perfection of markets is widespread in studies based on theoretical models (Grinblatt and Longstaff, 2000, Duffie and Rahi, 1995). In this context, problems of agency and information are seen as the reasons behind financial innovations (Lerner and Tufano, 1993; Ross, 1989). Transaction costs are also used to explain financial innovation. In addition, the phenomenon of financial innovation has also been associated with an increase in the volatility of macroeconomic variables (Smith et al., 1989). According to Frankel and Mann (1986), the introduction of financial innovations into the market is related to volatility in the price of financial assets and changes in the quality of international and domestic loans. Besides, they underline the importance of risk concerns in the behavior of financial institutions.

Many studies also highlight that financial innovations are result of the desire to avoid legal regulations and other limitations. Some researchers think that financial innovations are an answer to legal regulations and taxation (Silber, 1983; Miller, 1986). Miller (1986: 4) alleges that the driving force of successful financial innovations over the past two decades is regulatory and taxation. New financial instruments and practices are being developed to reduce financial constraints on firms (Silber (1983: 89). Silber's theory can be perceived as constraint-induced financial innovation theory.

Innovations in the financial system and financial institutions provide significant advantages. Merton's (1992) states that financial innovations play six important roles in financial markets:

- Moving funds across time and space,
- The pooling of funds,
- Managing risk,
- Extracting information to support decision-making,
- Addressing moral hazard and asymmetric information problems,
- Facilitating the sale of purchase of goods and services through a payment system

The driving forces of financial innovations are tax problems, transaction costs and brokerage fees, chances to reduce risks and to increase liquidity, changes in regulations, fluctuations in interest rates and prices, accounting benefits and technological developments (Ramsay, 1993).

Another driving force is profitability. Changes in regulations and markets stimulate a search for innovations that make investors profitable.

Interaction between financial innovation and financial market is shown in Figure 1.

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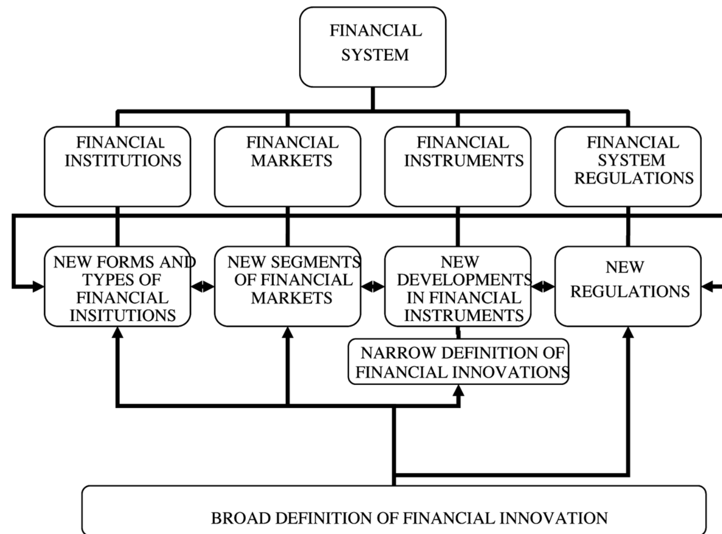
Figure 1. Financial innovation in financial system
Source: Blach (2011: 19)



Financial Innovation Classification

There is no agreed framework for classification as it is in the definition of financial innovation. Different classifications have been developed for different purposes. Within this classification efforts, three dimensions came to the forefront. In this context, financial innovations are generally classified according to their form, motivation and functions (Llewellyn 2009: 4). Frame and White (2004) separate financial innovations four groups according to their type: new products such as adjustable mortgage loans, services such as online paper transactions, production processes such as electronic record keeping and credit assessment, and just-internet banking.

Financial innovation is classified by their contribution as follows (Anderloni et al., 2009: 5-7):

- *Risk-transferring innovations* reduce the risk of a financial instrument. It also alternatively enables investor to protect against risk. For instance, Credit Default Swap (CDS) offers protection in the event that the risk may occur.
- *Risk-pricing instruments* enhance the efficiency of risk pricing by widening possible arbitrage channels and opportunities. For instance, a Collateralized Debt Obligations (CDO) market prices effectively reflect the markets' risk perception. Similarly, the secondary market prices of asset-backed securities (ABSs) reflect markets' view of credit risk.
- *Liquidity-enhancing innovations* affects the liquidity of instruments and assets.
- *Credit-generating innovations* increase the access to credit markets and the capacity of the total volume of credit.
- *Equity-generating instruments*
- *Insurance innovations* enable risks to be insured in return for the payment of a premium i.e. CDS
- *Asset and liability management innovations* widen the scope to manage their assets and liabilities by offering scope to manage risks and lending opportunities.

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- *Funding of financial institutions*: financial innovations affects the sources of bank funding. For instance, securitization enables a bank to diversify its funding.

Llewellyn (2009) divided financial innovation into four categories based on purposes:

- Defensive innovations including changes in policy and legislative,
- Aggressive innovations such as the creation of new products and tools that are marketed and considered to be successful,
- Response innovations - sometimes new financial services or tools are developed to accommodate changes in the customer's portfolio needs,
- Protection

As Llewellyn (2009) states that a financial innovation has function more than one. It is also difficult to distinguish between the motivations behind financial innovations and the function of innovations. Achieng et al., (2015) divided financial innovation into three categories:

- **Institutional Innovation:** Is the establishment of new financial institutions or change in the legislation.
- **Process Innovations:** Cover the introduction of new financial processes increasing efficiency.
- **Product Innovations:** Include the introduction of new banking instruments responding to changes in consumer demand such as loan, deposit, credit card and other financial products.

The main features of the product financial innovations are (Anderloni et al., 2009, Fabozzi & Modigliani, 2003, Frame and White, 2004):

- New solutions or instruments to increase liquidity and transactions suited to the circumstances of the present day,
- Substitutes to the traditional instruments to improve the financial conditions,
- Assigned to all financial markets,
- Used for hedging,
- Complex tools,
- Used in a form of new financial processes or techniques or new strategies that primary use these new products.

To summarize, classification of financial innovation is shown in Table 3.

Schmidt (2009: 63-88) focuses on the most wave of innovations: microfinance. Microfinance today represents the outcome of a combination of product and process innovations. Its most visible part is a product innovation: finance for the poor, in particular for poor self-employed people. However, microfinance has even started to attract the interest of private and institutional investors by rapid succession of process innovations

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Table 3. Financial ınnovation classification

Criteria	Types of financial innovations
Sources of innovations	Supply-driven innovations Demand-driven innovations
Factors of innovations	External factors driven innovations Internal factors driven innovations
Motives of innovations	Adaptive innovations Aggressive innovations Defensive innovations Protective innovations Responsive innovations
Elements of the financial system	Financial market innovations Financial institutions innovations Financial instruments innovations Financial regulations innovations
Types of innovations	Product innovations Process innovations Risk-shifting innovations
Effect of innovations	Sustainable innovations Harmful innovations
Moment of creation	Ex-ante innovations Ex-post innovations
Underlying assets	Debt-linked innovations Equity-linked innovations

Source: Blach (2011: 22)

Financial Innovation's Functions

Financial innovation is regarded as the driving force of the financial system to improve the economy and welfare. Financial innovation offers cheaper and available services to financial system and it increases quality of service and products in a long run. Consequently it provides sustainable growth (Levine (1997), Lerner and Tufano (2011).

Boot and Thakor (2001) explain the functions of financial innovation as follows:

- Decrease in the cost of payments and increase in the speed of determination of fraud
- Mechanism for the pooling of funds
- Management of uncertainty and controlling of risk
- Manages agency costs
- Enhancement of liquidity

Functions of financial innovation is shown in Figure 2.

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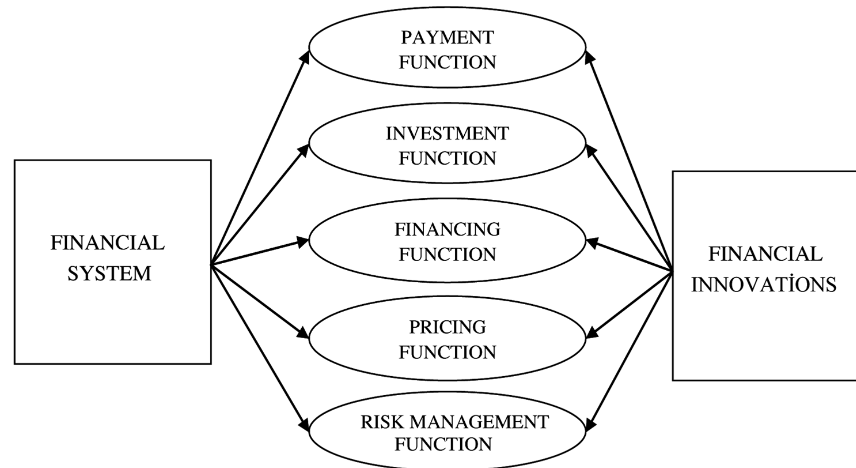
Figure 2. Functions of the financial innovations
Source: Blach (2011: 22)



FINANCIAL INNOVATION THEORIES

Constraint-Induced Financial Innovation Theory

Silber (1983) states that the main reason behind the financial innovation is profit maximization purpose of financial enterprise. Each enterprise tries to maximize their profit. But they face with restrictions. These restrictions decrease the efficiency of financial institution. Therefore, these institutions try to eliminate them. According to the Constraint-induced innovation theory, financial innovation is representative.

Circumvention Innovation Theory

Government regulations or controls create difficulties for companies to increase their profit. Financial institutions try to reduce the potential loss to the minimum by dealing with government regulations and increase their profit. Thus, financial innovation is created for the purpose of profit and circumventing government regulations. The market and regulation innovation is a continuous struggle between economic and political forces. Kane's Circumvention Innovation Theory (1987) does not match with the reality.

Regulation Innovation Theory

Regulation innovation theory by Scylla (1982) describes financial innovation from economic development perspective. According to the theory, financial innovation and social regulation are interconnected and they have mutual influence. Financial innovation means regulation transformation and has two-way causality with economic regulation. Besides, any change in regulations creates financial innovation. Moreover, there are and will be financial innovations intending to circumvent or eliminate government controls. It is a game between the market and government. It is a form of spiral development process named as "control-innovate, controls again-innovates again".

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The Transaction Cost Innovation Theory

Hicks & Niehans (1983) propose that the reduction of transaction cost is the key factor in financial innovation. Financial innovation created by advances in technology leads transaction cost to diminish. This theory explains financial innovation from the perspective of microscopic economic structure change.

The Location Theory

Desai & Low (1987) states that financial innovation enables the integrity of financial market. It is also microscopic economic model. This theory measures the gap in financial market and this gap creates potential opportunity for products' innovation and promotion.

Innovation Diffusion Theory

Gardachew (2010) describes the factors affecting the diffusion of the innovation. These factors are advantage, compatibility, complexity, adequacy and observability.

HOW TO MEASURE FINANCIAL INNOVATION

There is no consensus among researchers on the measurement of financial innovation. This is due to the difficulty of measuring financial innovation significantly.

Financial innovation is a combination of inputs and outputs. Financial innovation inputs are the resources and assets. It does not occur without resources, instruments, technologies, financial markets and needs of players. Inputs of financial innovation process are financial research & development intensity, human capital, intelligence technology (IT) capital and combination of them. Otputs are the products. The main output of financial innovation is knowledge. The innovative financial products are innovations in retail banking such as Internet banking, mobile banking, ATM, investment banking, insurance such as online quotations, hazard application, SME (Small and Medium Size Enterprises) banking such as credit scoring, psychometric scoring, information services such as electronic bank statements and other financial services (Ekpu, 2015: 6-7)

Research & Development (R & D) expenditures are used to measure financial innovation (Sterlacchini, 1999, Frame & White, 2004, Rossignoli & Arnaboldi, 2009). However, this innovation indicator is based on the assumption that R & D spending is renewed, it is considered that R & D expenditures are an inadequate indicator of innovation in the industry (Napoli, 2008). Tufano (2003) pointed out that R & D expenditures may not be a good indicator of innovation in the financial sector because most financial innovations are a variation of existing financial practices that do not require too much R & D expenditure.

The total number of patents has long been used as another innovation indicator. Although it is more indicative for the industry as it is in R & D expenditures, it may not be useful for the financial sector. Patents for new products and practices in finance are not very common. Moreover, it is very difficult to get a patent in the finance sector.

Another way to measure innovation is to use surveys such as European Community The European Community Innovation Survey (CIS), Mannheim Innovation Panel, MIP, OECD innovation Survey. The data source of the OECD innovation survey is "Analytical Business Enterprise Research and Develop-

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ment Database ". Beck et al. (2012) uses the ratio that is the financial R & D expenditures / total added value in the financial sector as the basic innovation measurement unit by using this database.

Some researchers have tried to develop their own indicators to measure financial innovations Tufano, 1989, Lerner, 2006, Rossignoli & Arnaboldi, 2009). Some researches prefer the case study method (Frame et al. 2001, Furst et al. 2002)

TECHNOLOGY AND FINANCIAL INNOVATION

Technology has an important role in financial innovations, Technology contributes to the design and pricing of new instruments, and facilitates the identification, measurement and monitoring of risks in portfolios containing complex instruments. It reduces trading costs in international markets, and has the effect of widening the market for new instruments to an international dimension. The role of technology in financial innovation has been underlined by Bloomestein (2000) and White (2000).

Financial Technology (FinTech) Innovations on people's minds is technology. FinTech has more attention than traditional innovation. FinTech innovations are radical innovations. Therefore, they create a huge potential to change financial services (Schindler, 2017).

Financial Technologies, or, in short, FinTech, can be described as the generic name for technology-intensive solutions, applications, products, business models presented on the basis of recent developments in the fields of information and communication beside or beyond the classical methods known to users of financial services. With the use of smartphones and tablets, which are now an integral part of our daily lives, FinTech products have easily reached and become available to every segment of the society. A third of financial service users have used at least 2 new generation FinTech services and are always open to new generation service use. This vertical component of the information industry is also very open to innovation. Therefore, new companies start to work with the idea of a financial solution as well as big financial companies are showing worldwide interest in FinTech. India is the forefront of countries that only create and support special clusters in the information sectors on FinTech. London asa classical financial center has a large share of the investments made in FinTech in Europe. The cities of Amsterdam and Stockholm are also listed first.

FinTech is a mixed discipline that needs to dominate both financial and information / communication technologies. New financial applications come to mind primarily in the crypto-currency world such as Bitcoin and related infrastructure technologies like Blockchain, but these are most common FinTech applications. Blockchain technology is a technology that needs to be emphasized especially since it is not only the crypto money but also the candidate for the infrastructure of many financial applications. In addition, new technologies that make all these applications available on smartphones are important in the financing of financial assets, robotics, intelligent supply chain management and FinTech infrastructure technologies, especially large data processing technologies.

FINANCIAL INNOVATIONS IN FINANCIAL MARKETS

Since the structure of the financial sector is a very sensitive and their products are service-oriented instead of concrete products, it is necessary that the presented solutions are designed very carefully and they should be fully compatible with the sector's strict regulations and banking laws and regulations.

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Otherwise, the results can be very costly for investors. In this case, financial innovations must also be very well tested, very secure, and fully backed up at all stages, in keeping with these rigid rules.

Financial innovations are divided into two parts in terms of use: banking and financial transactions.

Innovations in Banking

Innovative solutions make a difference and gain importance in banking. Because, banking sector is very competitive. Hence, innovations are becoming even more important for financial institutions.

Some of the benefits that innovation offers to the bank are;

- Customer satisfaction,
- The acquisition of new customers,
- Transformation of existing customers into loyal customers,
- Improvement / improvement in banking operations and processes
- Speed in banking (fast transactions, quick turnover of customers),
- 24 hours of service and every day (in the case of on-line banking),
- Increase in efficiency and profitability,

Nonbranch banking is increasing rapidly and banks have innovative applications: telephone banking, internet banking, mobile banking, iPhone, iPad, Android Phone, and Android Tablet applications, credit scoring, point of sales (POS) Banking, mail-order system, Automated Teller Machines (ATM) banking and Video teller Machines (VTM) banking and television Banking,

Current innovation areas in finance sector are mobile banking and channel integration, mobile or electronic payment systems, digital wallet, social media and credit card reward programs.

- **Mobile Banking:** Can be defined as a channel where the customer interacts with the bank through mobile telephony and personal digital assistants (PDAs) (Barnes and Corbitt, 2003). Mobile banking has different applications such as SMS Banking, WAP and these applications evolve depending on the developments in the technology.
- **Mobile or Electronic Payment Systems:** Covers the change of goods and services, organizational framework, operational processes and the entire network. Individuals and/or institutions themselves can easily buy and transfer values, the funds, securities and so on by instructions given to the bank through payment instruments or on-line systems, Electronic funds transfer (EFT), credit cards, smart cards, debit cards, etc. are basically internet Technologies.
- **Digital Wallet:** Is an electronic device or on-line service that allows an individual to make electronic transactions. Google Wallet, MasterCard PayPass Wallet and bank's wallet are popular.
- As a result of arise of **social media** with the support of mobile technologies, many goals have been combined with social media. Faster opinions and suggestions, responding to complaints in a shorter time, localizing campaigns and strengthening the brand name are example of this case. Thus, concept of "**Social Banking**" has emerged.
- **Credit Card Reward Program:** Is an incentive operated by bank sor credit card companies where a percentage of the amount spent is paid back to the card holder.

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Innovations in Financial Transactions

Financial innovations in banking are savings, microinsurance; payments, banking services, financial literacy and consumer protection. However, financial innovations go beyond the traditional banking sector (Yawe & Prabhu, 2015). The Digital Revolution has been taking the world for years. The Future is mobile. This is possible through digitization (Lumsden, 2018). The deeper a financial innovation, the greater the ability to transform financial services.

Artificial Intelligence

Artificial Intelligence is defined as an operating system that can produce high cognitive functions, such as perception, thinking, problem solving, communication, inference and decision-making, which are peculiar to human intelligence, or that can exhibit autonomous behaviors and respond accordingly. Like instinctual learning of animals, machines are also learning. For this purpose, the machine is trained either by the binary number systems (0,1), which are known beforehand, or by the machine parameters being self-tuned (Chen et al. 2007). In traditional artificial intelligence methods, problems are expressed by various symbols and rules are defined for different dimensions of each problem. While traditional artificial intelligence methods are quite successful in inductive problems and analogy based learning, they are insufficient in supervised learning (Özçalıcı, 2015: 49).

Artificial Intelligence will be able to produce solutions for international and local players at a much lower cost in unquestionably and accurately taking in investment decisions in the right areas and at the right time.

Artificial Neural Networks

Artificial neural networks (ANN) are mathematical models that mimic the neural networks of the human brain. By means of samples belonging to a certain age, various generalizations are made and then solutions are produced for events that have never occurred before. Artificial neural networks are successfully used in tasks such as model recognition, function estimation, optimal value finding and data classification (Elmas, 2011).

ANNs are often used to predict future financial variables and produces successful results. Since the relationship between economic variables in real life is complex and non-linear, artificial neural networks generate more accurate estimates. However, connection weights are not disclosed in them (Çalışkan & Deniz, 2016). Artificial neural networks are successfully used in signal analysis, variable selection, classification of data and discovery of patterns. The following features of artificial neural networks have made them a very practical tool (Palit and Popovic, 2005: 80):

- The ability of time series to reveal non-linear relationships between past values and future values
- The ability to reveal the essential functional relationship even when the collected data are noisy
- It has the ability to model arbitrarily determined, nonlinear functions with high accuracy.
- The ability to learn and generalize from examples in the control of data

Artificial neural networks are divided into linear and nonlinear. Again, nonlinear artificial neural networks are grouped in themselves as uncontrolled and supervised neural networks. The most basic and

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simplest information processing unit of artificial neural networks is neurons. In single-layer artificial neural network, information between neurons only flows forward. Multi-layer artificial neural networks are stronger than single-layer neural network architectures because artificial neural networks whose activation functions are sigmoid in the first layer and whose activation functions in the second layer is linear can be successfully used to predict many functions (Hagan et al., 1996).

Artificial Neural Networks also have disadvantages:

- long training and learning time is needed to solve real life problems.
- they do not explain the relationship between variables
- it can lead to poor generalizations such as excessive compliance.
- there is little guidance to be had on the topic, such as which model to use for a given problem.

Algoritmic Transactions

The algorithm is expressed as a set of logical finite operations whose starts and ends are determined to solve a specific problem. Technological developments can also provide advantages in financial markets thanks to algorithms. The algorithmic approach is expressed as the choice of the most suitable method for solution and the steps to be applied. For the solution, the available data are selected from the available methods and the steps to be taken are determined step by step. Algorithms can be defined on computers by means of a programming language.

Algorithmic operations take place in three stages: pre-trade, intra-trade and post-trade. Pre-trade analysis provides the opportunity to deal with potential risk reduction and hedging opportunities. Pre-trade analysis also provides information on investors, price movements in short-term and market conditions. Post-trade analysis consists of cost measurement and algorithm performance analysis. Algorithm analysis is pursued by means of predetermined optimal strategies. Post-trade analyzes are crucial to test whether pre-trade cost estimates predicted by brokers and dealers have been realized.

Genetic Algorithm

Genetic algorithms are introduced for the first time in the book "Adaptation in Natural and Artificial Systems" by John Holland in 1975. In this book Holland has introduced genetic algorithms as an intuitive method based on the understanding "the powerful survive". Since the first introduction of the genetic algorithm by Holland, it has been usefully used in search and optimization problems.

Genetic algorithms are population-based optimization algorithms that create new points in search space by applying selection and crossover methods (Armano et al., 2005).

Sakawa (2002: 12) summarizes the genetic algorithm properties as follows:

- Genetic algorithms are a stochastic algorithm.
- The population of solutions is considered in genetic algorithms. Instead of working on the solution, the solution set is coded.
- It is suitable to parallelize a population-based genetic algorithm.
- Robustness in genetic algorithms. Durability refers to providing consistently good results across a wide range of problems.
- Genetic algorithms use probabilistic transformation rules, not deterministic.

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The genetic algorithm basically consists of five basic components (Michalewicz & Schoenauer, 1996):

1. Genetic representation of solutions
2. Creation of the initial population
3. Determination of conformity function
4. Replacement of genetic components in reproduction process
5. The values of genetic algorithm problems.

In order to solve a real problem through a genetic algorithm, a good balance must be provided between the search and use of the solution space. In order to achieve this goal, all the components of the genetic algorithm have to be studied very carefully. Again, the performance of the algorithm can be improved by using additional heuristic methods (Gen and Cheng, 2000: 2).

Support Vector Machines

Support vector machines have been developed by Vapnik in 1995. When structural risk minimization is carried out in support vector machines, a system based on empirical risk minimization in artificial neural networks is mentioned. It tries to find hyperplanes to maximize the distances between support vector machines and the closest educational observations (Cortes & Vapnik, 1995).

In the support vector machines, an attempt is made to find an upper limit to which the error can be minimized. In artificial neural networks, a false classification error is minimized.

Big Data

With the rapid development of technology and the internet, it has begun to produce information about the users on a huge amount of discs. These data stacks on the discs constitute a large stack of information. Big data is described as data sets that are too large to be analyzed and managed by traditional data processing tools. Big data gives people information that users have produced in the past and about the future. It is aimed to obtain economic value to the companies or institutions by increasing the customer or user satisfaction in each area by the on-line reporting and by using the data which can not be recorded until now. There are 5 main components in the formation of Big Data. These components are respectively; variety, velocity, volume, verification and value. It is generally called 5V (Aksoy et al. 2017).

Big data analysis has three steps; These consist of data gathering, data sorting and data interpretation. The data collection process means that different types of data such as text, visual, etc. are retrieved from devices such as internet, sensors fast and securely. The second stage, the regulatory section, means that the data received from the devices are taken at a high level of efficiency and that immediate and necessary adjustments are made on the data. The data interpretation proscess refers to the interpretation of the data using open source projects such as Hadoop, MapReduce.

Big companies producing services related to Internet technologies and all state-owned institutions (social media, search engines, e-mail services, etc.), work on new algorithms and software to use data. The work can be applied with open codes, while some works are hidden.

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Blockchain Technology

Since the introduction of Bitcoin (virtual currency) in 2009, blockchain technology has been a major concern. With Bitcoin application, blockchain technology has become important for companies and institutions.

Blockchain technology has the potential to launch a new era characterized by global payment systems, digital assets, decentralized management and even decentralized legal systems (Wright & De Filippi, 2015).

Blockchain technology is a concept associated with cryptography and information technologies. Blockchain technology is a distributed database. There is a chain structure in the logic of blockchain operation based on data. The chain starting with the first data entry has a structure that can go on forever. The addition process of the data starts from a single point, and all users, including the chain, load the old data into their systems. In the next stage, the user joining the system generates a code, which is then added to the longest block chain in the system. This chain is given the name of the main chain. All information on the system is stored in all chains (Crosby et al. 2016).

Blockchain technology is based on a decentralized book structure and on the basis of mutual agreement of the parties (consensus protocol). This technology allows the creation and sharing of a distributed digital account book among computers on a network. The note-book can not be owned or controlled by a central authority or company, and can be viewed by all users on the network (Underwood, 2016: 15-17).

In blockchain technology, the encryption mechanism is used instead of the third party's trust mechanism in order for two parties to conduct an on-line transaction over the Internet. Each transaction is protected by a digital signature. It is sent to the recipient's "public key" and digitally signed using the sender's "private key". Once transactions are performed between the parties, the information can never be deleted and a precise and verifiable record of each transaction is stored (Iansiti and Lakhani, 2017).

The block-chain is an open and worldwide infrastructure that reduces transaction costs by eliminating the intermediary (third party) of companies and individuals. With the blockchain, technology can be secured, invariant, transparent, and cost advantage can be achieved by disabling intermediaries.

Bitcoin

Prior to the crypto currencies, digital currencies named "e-gold" by Nick Szabo in 1996, and "b-money" by Wei Dai in 1998 have been introduced. These are followed by Bitcoin.

Bitcoin is a virtual currency created by cryptography. Bitcoin is based on the article titled "Bitcoin: A Peer-To-Peer Electronic Cash System" published by a pseudo-author Satoshi Nakamoto in 2008 (Nakamoto, 2008). Approximately two months after publication of this article, which is considered to be a milestone for crypto-money, a Bitcoin network has been established and then the first digital money transfer between the partners took place. For the first time in 2011, Bitcoin's open source code is used to create subcoins. While some of them lose their value and disappear; some of them are still on their way.

Bitcoin is a currency unit designed for anonymous payments made entirely independently of governments and banks (Segendorf, 2014: 71). Glaser et al (2014: 1) defines bitcoin as an electronic financial mechanism that exhibits features similar to a foreign exchange system established by its own monetary creation and trading regime, but it has decentralized organizational structure.

After Bitcoin, various virtual currencies emerged such as Ethereum, Ripple, Bitcoin Cash and Litecoin. According to "www.coinmarketcap.com", one of the platforms where the crypto money market is

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followed most, there are a total of 1583 different crypto currencies by April 2018. This cryptographic currency is 894 coin and 689 is token. The 893 coins outside the bitcoin represent subcoin.

The digital/virtual currency defined as a crypto currency is seen as both a transfer and an investment instrument because the transaction costs are very low and the transactions can be performed very quickly. This type of currency is needed because people want to be more free, to transfer their money comfortably, cheaply and safely.

SOLUTIONS AND RECOMMENDATIONS

Innovation is an important concept in recent years. The studies shows that innovative companies have gained a lots of profits by investing in this field. The effects of innovations in the financial world are increasing. Innovations provide various benefits to organizations such as customer satisfaction, reducing business risks, developing customer loyalty, increase in the total performance and profitability of the organizations and eventually advantage in competition.

Developments in the field of technology and artificial intelligence are likely to reveal new areas. Thus, it is strongly recommended that financial companies should give importance to the technology and innovation. Because, future is mobile and innovative

FUTURE RESEARCH DIRECTIONS

This study aims to provide information about innovation and financial innovation. For this purpose, financial innovation and applications mentioned in literature are explained. The purpose of this study is to demonstrate the importance of innovation in the financial sector and to explain its benefits. It is believed that this study makes a contribution to the literature. On the other side, empirical studies on this subject are limited. It is better to create new models and conduct an econometric study on financial innovations.

CONCLUSION

Financial innovations have a positive impact on long-term growth performance. Innovation research has shown that the increase in countries' innovation performance plays a key role in economic and social development, prosperity and development. Besides, financial innovation is the most important driving force for the transition to the information economy. Countries with effective innovation policies and systems are progressing rapidly in the development race and they overcome many social problems, including inequalities by innovation.

Fnancial innovations provide many advantages such as speeding up transactions, offering alternative tools and products. Hovewer, they also bring negativity in terms of risk and security in operations. Emery and Finnerty (2002), argue that there is a close link between financial innovation and the cycle of speculative bubbles and catastrophic busts that has been the cause of much economic and social misery. Many academic researches indicate that financial innovations may increase complexity, risk and uncertainty. Many of the new studies emphasize that securitization and credit derivatives have contributed to

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financial crisis by causing a drop in lending standards and excessive credit growth (Dell 'Ariccia et al., 2008; Mian and Sufi, 2009; Keys et al., 2010; Loutskina and Strahan, 2009). Most of the studies after the crisis indicate that the volatility of financial assets has increased and the volatility of some macro variables has contributed to the crisis and increased the depth of the crisis.

The possible consequences of financial innovation are a highly under discussion. However, innovation has become an indispensable source of dynamism for both today's national economies and businesses. Globalization and global competition require innovation. Hence, future is mobile and should be innovative.

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KEY TERMS AND DEFINITIONS

ATM: It means automated teller machine that is an electronic device by which customers can perform their banking operations without going to the branches.

Bitcoin: Bitcoin is a virtual currency created by cryptography.

Financial Innovation: Financial innovations are developments in the national and international financial markets that improve the operational effectiveness of the financial system by reducing transaction risk and/or transaction costs on primary and secondary markets where financial instruments are involved.

Innovation: Innovation means transforming an idea into a marketable product or service, a new or improved manufacturing or distribution method, or a new method of social service.

R&D: It means research and development.

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Section 2

Section 2

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Chapter 8
Innovative Methods in Financial Risk Management

Ozge Doguc
Istanbul Medipol University, Turkey

ABSTRACT

The regulations that emerged from the global financial crisis of 2008 and fines that were imposed afterwards triggered a wave of changes in how risk is managed. Innovative methods for risk management became more important as the standards for compliance and management tightened. Institutions also invested in strengthening their risk cultures and involved their boards more closely in key risk decisions. This chapter discusses major risk factors for financial institutions and the innovative solutions that they introduced to manage risk better. Innovative solutions in risk management are not limited to advances in technology such as machine learning and data mining, but also include new regulations, better monitoring, and stricter auditing. Financial institutions improved boards' oversight of risk, created new committees for risk assessment and monitoring. and developed new methodologies for risk management.

INTRODUCTION

For most financial firms, failures of 2008 clearly showed the vulnerabilities often caused by excessively large leverage levels. Unsuccessful risk assessment of their positions and immediate reduction in accessibility to secured funding options exposed their dependencies. Some improvements have been made since then but establishing innovative improvements in risk management remained a key priority for financial institutions. (Risk Management Lessons from the Global Banking Crisis of 2008, 2009)

In 2007, it was not possible to see that risk management could have changed as much as they did in the last decade. The regulations that were created after the global financial crisis of 2008 and fines that were imposed later triggered a number of changes in how risk is managed. These changes included more detailed and challenging capital, funding and liquidity requirements, as well as tighter controls for reporting risk, such as Dodd-Frank, Basel III, BCBS 239. Innovative methods for risk management became more important as standards for compliance and management tightened. Stress testing became a popular tool, in parallel to more detailed risk-appetite statements from financial institutions. Institutions

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also toughened their risk cultures and involved their boards more closely in key risk decisions. Because of the size of these changes, most risk management entities in financial institutions are still planning and performing transformations that respond to these increased demands. (Härle, Havas, & Samandari, 2017)

Financial institutions continued to adopt technology solutions to manage risk better. Innovative solutions in risk management are directly linked to technology-driven innovation. Also, use of technology and its implications are not limited to financial institutions. Regulators have been rapidly adopting a wide range of data gathering and analytical tools, too. They are trying to learn more about individual institutions' activities and overall world-wide trends. Procedures and data requests through stress tests, asset quality reviews and enhanced reporting requirements coming out of key regulators around the globe are examples of these trends. (Courbe, 2017) Using sophisticated analytical tools on large volumes of data, regulators can compare scenarios and address potential issues before they become full-scale market problems.

This chapter discusses major risk factors for financial institutions and the innovative solutions that they introduced recently to manage risk better. Innovative solutions in risk management are not limited to advances in technology, but also include new regulations, better monitoring and stricter auditing. The chapter shows how financial institutions benefit from recent technological advances such as advanced data mining techniques and biometrics and combine them with new regulations for better risk managements. These solutions can be analyzed in a few categories.

LITERATURE SURVEY

(Daianu & Lungu, 2008) considered the factors that are responsible for the failure in the financial markets, and eventually contributed to the economic crisis in 2008. Newly created complex financial products; inappropriate regulations in the financial markets; and poor risk management practices at financial institutions are among these factors. (Stultz, 2008) mentions about five major factors that led to the collapse of the risk management and assessment systems in major financial institutions. Some of those factors are using inappropriate risk metrics, lack of communication of risks and transparency with the top management and failure to use risk assessment and monitoring systems. Both (Stultz, 2008) and (Daianu & Lungu, 2008) recommends an Integrated Risk Management (IRM) system for financial institutions where all risk results are accumulated in a coordinated framework.

There has been a number of studies suggesting and offering innovative methods in risk management. Some of those studies focus on the recent technological advances and discuss how they can be effectively used in financial risk management. (Hammond, 2018) discusses how new technologies can be adapted to financial institutions' existing risk and resiliency framework. New regulations such as Markets in Financial Instruments Directive (MIFID II) and GDPR make this transformation more challenging than ever. Big data and analytics have been used by the financial companies for predict trends and prescribe actions in risk management; (Werther, 2016) shows how multi-structured data can be used for financial risk management.

Management of risk requires risk analysis methods that involve certain qualities to answer different questions. (Ansell & F, 1992), (Halman & Keizer, 1994) and (Chapman & Ward, 1997) discuss some of these qualities that are essential to major risk analysis and management methods.

In their white paper, (Harreis, et al., 2017) summarize how the new regulations such as BCBS 239 impact the risk analysis techniques used by the financial institutions. They discuss that despite the data

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and technology investments, however, overall BCBS 239 compliance levels have declined since 2015. Therefore, as shown in (Approval Management, 2018) and (Wortman, 2017) financial institutions create their own internal regulations to keep up with the necessities of the regulations. This chapter explains a number of innovative adaptations that the financial institutions have created for better risk management.

TECHNOLOGY

A number of recent technological innovations have been pioneering transformation in financial institutions.

A number of techniques such as big data and analytics, artificial intelligence (AI) / machine learning (ML) and data mining are currently most common in financial applications. These technologies have been used in finance for a while and they have significantly changed the finance industry in the last few years. (The digital bank: tech innovations driving change at US banks, 2017) This section discusses adoption of technology by financial institutions for innovative solutions in risk management from two aspects: Customer anticipation of technology and use of technology in internal applications.

Customer Anticipation

Shifts in customer expectations and technology have caused substantial changes in banking and gave it an entirely different shape. In the recent years, widespread technology use became the new standard for customers. Current technical competent young adults will eventually become the major revenue supplier to the financial institutions, as these institutions make most of their revenue with customers over 40. Older customers will adopt technology at a much higher rate at the same time.

In both developing and emerging markets, use of new technology is already becoming wide-spread. Financial institutions have expanded their online offerings from basic online banking to loan applications, mobile banking, commercial banking and credit monitoring. With these offerings, transaction risk results from fraud, processing errors, system disruptions, or other unanticipated events. The level of transaction risk is determined how the financial institution's IT environment is set up, such as types of the services that are offered and the complexity of the IT processes as well as the supported technology. The key to managing transaction risk requires adapting effective policies, and controls to meet the new risk exposures introduced by online banking. (E-banking Booklet, 2003) Controls for information security require additional processes and tools for the financial institutions. They need to decide the level of security controls based on the sensitivity of the information that they store and process; and set up a risk tolerance level accordingly.

Next section discusses some of the recent data breaches, to show how significant transaction risk has become for the financial institutions.

Recent Financial Data Breaches

JP Morgan Chase (2015)

In 2015, the hackers announced that they had obtained the list of applications and programs that run on JPMorgan's computers. Hackers had the ability to crosscheck those applications and programs with known vulnerabilities, in search of an entry point back into the bank's systems. The hacker group was

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identified to operate overseas, and they eventually gained access to the names, addresses, phone numbers and emails of millions JPMorgan customers. JPMorgan said that there was no evidence that account information, including passwords or SSNs, had been taken. They also mentioned that there was no evidence of fraud involving the use of their customer information.

Until the JPMorgan Chase breach became known in July 2015, major financial institutions were viewed as safe from online hacking attacks because of their investment in IT security and trained IT personnel. That being said, most of the previous financial breaches have only involved stealing customer PINs, instead of hacking into the internal IT infrastructure of the financial institutions. (Silver-Greenberg, Goldstein, & Perlroth, 2014)

Citibank (2011)

SSNs and other personal information of around 150,000 Citibank customers who went into bankruptcy between 2007 and 2011 were made available to public, after Citibank accidentally release them as part of their court records on the Public Access to Court Electronic Records (PACER) system. (Kovacs, 2013)

Scottrade (2014)

In 2014 Scottrade, the stock trading service, lost information on 4.6 million customers to a hacker group.

Hackers broke into a large database of Scottrade customers, where customer names and physical addresses were stored. The database also contained emails and SSNs, but Scottrade mentioned that that data was not actually captured. On the other hand, they acknowledged that unknown group of hackers had broken into its computer network. Scottrade revelated that they didn't know about the attack and data breach until they were informed by the FBI in August 2014. (Pagliery, 2015)

While data breaches and information leaks have always been an issue with major organizations, financial institutions have been employing innovative techniques and creating novel applications to manage financial risk altogether. As technologies such as mobile applications, electronic wallets and cryptocurrencies become more popular among their customers, financial companies felt the need to adapt these technologies in their offerings and services. Adjusting legacy services like ATM banking to new ones such as mobile banking comes with new risks to deal with. Next section presents some of the innovative technologies that the financial companies use to provide better services while managing new risks that come with novel services.

E-Banking

E-banking is the electronic delivery of financial products and services to the customers through automated channels. E-banking involves services that allow customers to access their banking accounts, execute transactions, obtain information about their portfolios and services that are offered to them. Customers use e-banking services using a smart electronic device, such as a PC, mobile phone or an ATM. Risks and controls are similar for various e-banking access types, and this section focuses specifically on the Internet-based services due to the Internet's popular and publicly accessible network. (Marous, 2017)

E-banking processes are known to pose enhanced security challenges for the risk managers. Some these challenges are setting up appropriate user privileges, creating access controls, maintaining suitable controls for physical and remote access to both internal and external resources, etc. Additionally, e-banking transactions ensures clear audit trails for customer activity, while preserving privacy of

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sensitive e-banking information. Major financial institutions are known to provide their customers with timely information on disclosures, protection of customer data and business availability that they should expect when using banking distribution channels, although customer protection and privacy regulations vary in different states and countries.

Financial institutions take proper measures to ensure adherence to customer privacy requirements and display them on their websites to minimize legal and reputational risk associated with e-banking activities conducted both internationally and domestically. (Supervision, 2003)

E-Loan

Today, most banks offer online loan applications. During a loan application, users are required to share sensitive information for credit and background checks; and this produces many security and privacy concerns. No matter how secure and trusted the financial institutions are, customer information has to be shared with other parties for background checks and credit assessment. KBC Bank (Belgium) rolled out their "My Car" program that aims to create a seamless customer experience in car loans by using the blockchain technology. The My Car programs takes customer experience from signing the order to the moment they drive their car off the dealer's lot. This process includes obtaining the car loan, signing up for the insurance and even the acquisition of a license plate.

The My Car program helps the customer with secure car payments through the blockchain technology. The essence of the blockchain technology is to ensure a shared truth source between the participants and central place of workflow. Every participant in the system benefits from a faster and more secure flow: the customer, the car dealer, the distributor, the government, the insurer, and the bank.

The starting point of the My Car program is the poor car buying experience and fraud involved around the process. For example:

- Order for a new car placed through the My Car program serves as proof that there actually is a car to sell and usually results in very low interest rates.
- My Car program creates a centralized and automated process that all parties monitor and control; and thus, reduces the wait times.
- Moreover, around 50% of the car buyers can bot pay for the car on their first appointment. (Marous, 2017)

Digital Wallets

Digital wallets have been becoming popular as part of consumers' mobile banking selections. Apple Pay has secured most of the market share, as its near-field communication (NFC) technology lets consumers pay for transactions at supporting locations by simply tapping their phones and using thumbprints and faces to authenticate and authorize the transaction. The Google Wallet service also works in the same way.

Financial systems have been evolving their mobile strategies with the new mobile payment systems. They're either supporting the digital wallet and e-payment technologies and building on it or having been excluded from transactions. Mobile payments and transactions have pushed the financial industry away from relying on paper checks and card swipes. Customers already have the technology with them to secure and instant payments.

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Digital wallets provide two types of mobile payments: online and at physical POS. Apple and Android (Google) Pay are examples of physical POS payment systems. There are several other companies also offering these services, such as Chase Pay (from JP Morgan Chase), MasterPass (from MasterCard) and Samsung Pay. Most physical POS payments utilize the NFC technology that is found in most smartphones. In the NFC technology, the card information is neither stored on the phone nor it is given to the merchant during the payment process. Instead, NFC creates a token that is given to the merchant. Apple Pay takes security in the NFC scheme one step further, requiring all NFC transactions to be verified by finger print, face recognition or passcode.

Digital wallets find an important application area in mobile e-commerce through websites and apps, as they are available as payment options at checkout. Other choices are also becoming popular, such as paying with Amazon, PayPal, or Facebook accounts, as they enable one-tap checkout process as all financial details are already stored in the system; and all that is required is signing into the associated mobile wallets. Another new technology currently being becoming popular in the financial industry is the cardless ATM. It works using a mobile or digital wallet, (Apple, Android or Samsung Pay) by selecting the debit card and the user will actually have to enter the corresponding PIN at the ATM for the card that has been selected. This is a method a lot safer than using a card at an ATM, which can be copied, stolen, or simply lost. (Understanding the risks of mobile-payments technology, 2017)

Another successful example of a digital wallet implementation is Barclay (UK) Barclaycard's "Grab+Go" application. Barclaycard recently introduced this application to allow the retail customer to scan the items they want to buy as they pick them off the store shelves, initiating a mobile payment and leaving the business without needing to go through a long check-out line. One of the pain points of purchasing that consumers constantly complain is the need to queue to make a payment for something; they increasingly want speed and convenience when shopping. The Grab+Go app allows shoppers to simply scan the items they want to buy as they select them, click checkout when they're done and walk out the store without visiting a cashier. Payment is taken seamlessly and invisibly in the background using pre-loaded card details. (Foxton, 2017)

Making 'invisible payments' is becoming increasingly popular in many of the mobile apps, including Uber, Deliveroo, Amazon's 1-Click ordering service, etc. Instead of entering payment details every time, they are instead stored in an app or online interface, with the authorization for the merchant to process payments incorporated into the purchase journey, seamlessly and invisibly.

Biometrics

As consumers use the mobile tools and applications more frequently, biometrics have started to play a more important role. Users can simply use their faces or thumbprints to login to their mobile banking applications and perform secure transactions. With recent developments in mobile cash technology, banking customers can use biometrics to initiate a cash withdrawal on their mobile devices and securely complete them at an ATM or a branch location.

Biometrics simply replaced the requirements to provide two forms of identification and a PIN. Occasional data breaches and leaks made identity information and PIN numbers of millions of customers public. Also, according to Apple, for TouchID (Apple's fingerprint reader) probability of a randomly matching a fingerprint is 1:50000 while the probability of guessing a four-digit PIN is only 1:10000. (Bhowmick, 2016) Statistically speaking, this would make TouchID five times more secure than a PIN. With the more recent face recognition technology brings this probability down to 1:1,000,000. Financial

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institutions that adopt the face recognition technology in their mobile and online applications will have critical advantage over others in reducing the transactional and thus reputation risk. (Hassell, 2016)

In addition to the products and services that they provide their customers, the financial institutions use the latest trends in technology in their internal applications and processes for better risk management. Next section discusses some of the innovative methods that the financial institutions utilize in their risk frameworks.

Internal Use of Technology

Technology when supported by advanced analytics, enable new risk-management techniques for financial institutions and thus change customer behavior. Wide spread of new technologies provides cheaper, faster computing power and data storage that enable better risk decision mechanisms and process integration. (Härle, Havas, & Samandari, 2017) While a number of innovative technologies have already come out, the effects of some that have important implications for risk management are already being experienced.

With monitoring and surveillance becoming automated and real-time, gap between surveillance and reporting is narrowing in time. In addition, technology and infrastructure enhancements allow future risk models to be better embedded and integrated in decision- support tools. For example, in deploying machine-learning across credit decisioning but also in enabling predictive analytics to inform materiality-based oversight and allocation of scarce resources. This ultimately drove banks to integrate teams and infrastructure supporting different types of modelling, reporting and surveillance activities, ultimately creating common organization-wide utilities. Risk managers' role would focus on calibrating and interpreting rather than data preparation, reporting, maintaining desktop models, etc. Table below shows a list of new technologies that financial companies will adapt in the near future for internal processes.

Big Data and Data Mining

Financial institutions have access to large amounts of customer data. Besides, faster and cheaper computing options enable financial institutions to leverage new information in risk decision making such as customer spending behavior, online activity and mobile use. Processing vast amount of customer and spending data offers substantial improvements not only for better credit-risk decisions, but also for portfolio monitoring, early detection of financial crimes, and prediction of potential operational losses.

Table 1. Application areas of new technologies in finance

Focus Areas	*Opportunities*
Big Data	*Unstructured data analysis to enhance lending decisions* *Media analysis for reputation risk*
Machine Learning	*New approaches to risk modeling; for example, credit decisioning* *Predictive analytics to support monitoring and controls*
Robotics and Automation	*Regulation monitoring* *Credit decisioning* *Reporting*
Blockchain	*Data reconciliation* *Authentication*

Source: (Feghali, Stylianides, Raina, & Goldner, 2017)

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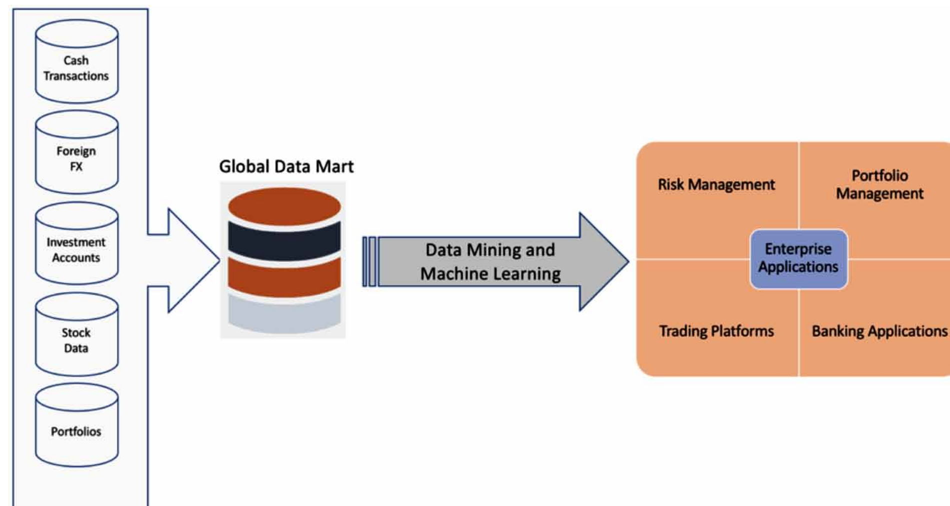
Financial institutions have recently started to realize this potential, and many challenges still remain in the way (Härle, Havas, & Samandari, 2017).

(Loganathan, 2016) describes three steps in customer relationship cycle: customer acquisition, customer valuation and customer retention; and mentions that data mining can be useful in all three steps. For example, financial institutions use regular mail to target the credit card customers. Recent research shows that only 6% of the customers actually respond to those mails. It is also measured that only 16% of the total respondents are in good credit status. So, in summary about 1% of the total targeted credit card customers are eventually converted into real customers (Loganathan, 2016). Data mining has been used by companies to reduce the cost associated with this effort significantly, by helping the marketers with more focused and customer-centric marketing processes. Decision tree techniques like CHAID and CART are popular amongst the data mining applications to predict sales and create marketing models to find out the customers that are more likely to convert to sales.

In most finance and banking applications, the amount of data that needs to be processed is too large for managers to derive immediate conclusions. Such applications are very suitable for data mining algorithms, where the patterns, and correlations can be found more effectively as datasets get larger. For example, risk managers in the financial institutions use data mining techniques to find patterns and sequences in customer transactions. This helps greatly for creating a more profitable customer base through targeted marketing campaigns and offering specialized services. In addition, the data mining techniques help the risk managers to classify their customers and create product and services that are aimed at different classes (Amala Jayanthi, Swathi, & Tharakai, 2016).

As discussed earlier, in the banking and insurance industries, implementation of risk management systems plays a central role in order to identify, measure, and control exposure to risk. For financial institutions, credit and market risk assessment are still the most important challenges. Data mining and complex database systems provide easy to use tools for risk managers to assess and manage various risk types. These systems provide integrated risk management systems that provide models to represent financial instruments and their behavior (Dass, 2014). Figure 1 shows how data mining is serves multiple business areas in financial institutions.

Figure 1. Data mining serves multiple business areas in financial institutions (Dass, 2014)



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Financial Market Risk

Market risk assessment for simple financial instruments, such as stock indices, interest rates and currencies are performed based on a number of risk factors such as interest rates and stock indices.

(Nagarathna & Moorthi, 2015) Different approaches exist for market risk assessment; and they mostly depend on the models representing single instrument, their behavior and interaction with overall market. These approaches can be built by using various data mining techniques using the portfolio data, since data is not publicly available and needs human supervision.

Credit Risk

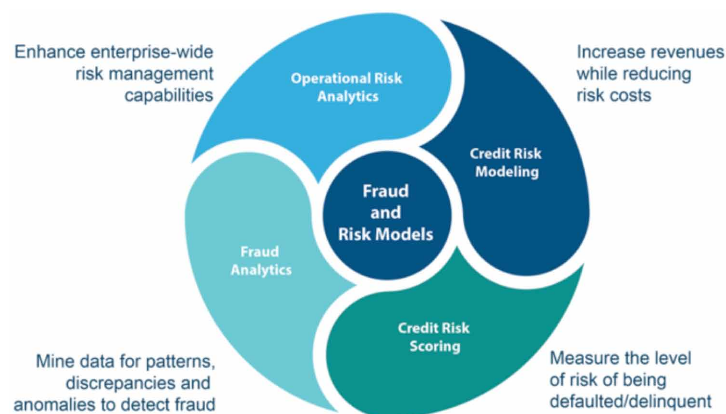
In commercial lending applications, credit risk assessment is a critical element; so that lender would need to assess the risks associated with the borrower to make an objective judgement and decide how much to charge for the loan. There are two groups of credit risk management applications:

1. Credit scoring and credit rating. Assignment of a customer or a product to risk level.
2. Behavior scoring and credit rating analysis. Potential change in customer's or product's risk level.

For the financial institutions credit risk is quantified by a number of factors such as value of credit products, products' ratings, changes in customers' portfolio, etc. Thus, the major part of creating a credit risk management platform is simply a data mining application: Credit instruments' values should be evaluated through the probabilities, rating migrations, and recovery rates. Figure 2 shows how data mining is being used for credit and market risk assessment.

Dass defines three approaches to credit risk modeling on the transaction level: accounting analytic approaches, statistical prediction and option theoretic approaches. With large amount of information about their clients are available to financial institutions, an ample way to build such models is to use data mining techniques with their own databases, also fitting models to the business needs (Dass, 2014).

Figure 2. Data mining is used in risk assessment (Advanced Analytics, 2017)



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Portfolio Management

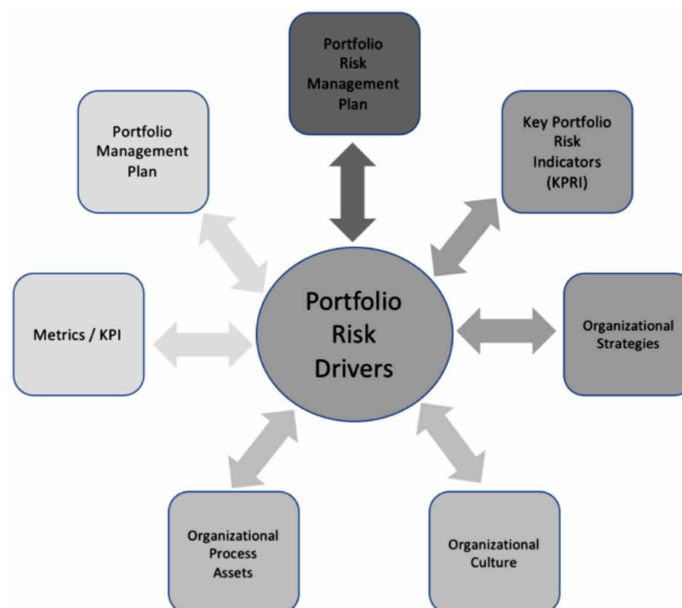
Forecasting models have been used in portfolio management for a very long time. Better forecasting models provide more effective risk/return results in institution-wide portfolios. Figure 3 shows how risk and return assessment of portfolios are dependent on various inputs. Application of modern risk theory is an important part of portfolio management. With data mining and optimization techniques, portfolio managers have more tools to utilize while selecting best portfolio allocations for their clients. These tools help the portfolio managers with the ability to generate trade recommendations and new portfolio designs through data provided by users.

Data mining techniques allow the portfolio managers analyze a number of scenarios with different instruments, prices, returns and risk. Additionally, these techniques can be used in what-if analysis with changing market conditions such as interest and exchange rates; and their impact on the portfolios can be assessed. These analyses are key to portfolio risk assessment; as some results can show the actual market conditions. Also, profit and loss analyses allow users to access an asset class, or custom sub-portfolio can be benchmarked against common international benchmarks (Nagarathna & Moorthi, 2015).

Customer Profiling and Customer Relationship Management

Financial institutions store transaction and customer information in very large databases. This data can be used to obtain valuable information for improving business decisions. However, traditional statistical methods do not have the range to work with such quantities of data, and therefore modern data mining methodologies have been becoming increasingly popular for analysis and decision-making processes in banking and financial institutions. (Loganathan, 2016) Customer profiling is defined as a description or analysis of a typical or ideal customer for one's business (Harper Collins Publishers, 2018). For

Figure 3. Drivers of portfolio risk (Masood, 2017)



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example, financial institutions collect information obtained from customer profiling, which can be used for different reasons, such as making new marketing decisions, risk analysis and improving customer policies. Data mining comes in handy for customer profiling applications, as it can handle large quantities of data and detect trends and patterns in data. It can also derive rules and generate models that are useful in making decisions that can be applied to different use cases.

Customer profiling requires finding out certain characterizations of customer groups. Data mining techniques can process customer data to find out special groups of customers that can be targeted for revenue generation processes. These techniques employ AI algorithms that can generate list of customer profiles through incremental learning techniques; and predictive modeling methods. (Manjunath, 2015)

Machine Learning

Machine learning (ML) is an application area in artificial intelligence (AI) that provides ability to learn and derive information from experience without human intervention or being programmed. ML applications are designed to improve the derived information when new data is available. This allows the ML applications to improve their predictions over time. Today, many sectors have already been using ML techniques in their applications such as product recommendations, weather forecasting, and spam email recognition. Similarly, some financial institutions have started to use the ML applications in collections or credit-card-fraud detection, with very successful results. (Härle, Havas, & Samandari, 2017)

Generally speaking, ML is a method of teaching applications to work with data, learn from it, and then derive information or make prediction about new data. Instead of programming a specific set of instructions to accomplish this task, applications are trained with large amounts of data and algorithms to learn from data. ML attempts to find and learn from patterns and trends within large datasets to make predictions. ML has a long tradition of development, but recent improvements in data storage and computing power have made them omnipresent across many different fields and applications; such as Apple's Siri and Facebook feeds.

One of the earliest uses of machine learning was within credit risk modeling, whose goal is to use financial data to predict default risk. For their risk functions, financial institutions have been using ML in various areas, ranging from fraud warning systems to credit underwriting and collections in retail segment. As the first phase of a loan approval process, the financial institutions evaluate if the applicant can repay the loan principal and interest. Lenders commonly use measures of profitability and leverage to assess credit risk. The complexity of deciding who to provide credit to multiplies when financial institutions combine many other dimensions they examine during credit risk assessment. These additional dimensions typically include other financial and behavioral information about the applicant. Summarizing all of these various dimensions into one score is challenging, but machine learning techniques help achieve this goal. Thanks to rapid increases in data availability and computing power, machine learning now plays a vital role in both technology and business. Machine learning contributes significantly to credit risk modeling applications. Using multiple large datasets, machine learning experts analyze the performance of a set of machine learning methods in assessing credit risk of small and medium-sized borrowers. Machine learning methods provide a better fit for the nonlinear relationships between the explanatory variables and default risk. Also, using a broader set of variables to predict defaults greatly improves the accuracy ratio, regardless of the models used. (Bacham & Zhao, 2017)

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Applications of ML in Banking and Finance

- **Customer Service:** According to a CGI study in 2014 to understand what banking customers want, 55% of the customers wanted to have access to wealth building services and 52% of them they needed assistance from banks for saving money. One of the recent applications for ML in banking is the use of chatbots that use ML to track the customer behavior and spending patterns; and generate tailored recommendations on saving and wealth building. For example, Bank of America released its chatbot, Erica, to help customers perform simple banking transactions by offering them suggestions on managing finances. Erica generates the insights based on customers' transaction history as well as other data. In addition, it promotes financial products and services and suggest targeted offers.
- **Fraud Detection:** As discussed in the previous section, ML programs can recognize abnormal activities based on historical data; and this is very useful for real-time fraud detection. Cost of fraud is significant for the financial institutions, considering that in 2016 alone bank customer lost nearly $16 billion in identity theft and fraudulent online activity. ML applications have been used by the financial institutions recently to detect patterns in the historical behavior of their clients. Unusual customer activity is detected by these applications and alerts are generated to indicate possible fraudulent action. Anti-money laundering (AML) tools make use of those predictive analytic methods to trace the source of the money through disguised illegal cash flow.
- **Risk Management:** With new data mining techniques available to them, financial institutions has been trying to improve the loan approval processes. ML algorithms can predict the possibility of a user defaulting on a loan by processing data obtained from various sources such as financial information, credit scores, spending habits, etc. With such information in their hands, financial institutions can better tailor loans, create personalized terms and conditions and customize services that fit customer profiles.

In addition, ML algorithms have been used for reducing operational risk in the fraud detection systems. Traditional fraud detection methods involve analyzing structured data with a set of static rules. This type of analysis can produce many false positives and requires considerable human intervention. For example, PayPal has been using deep learning technology, which can make use of thousands of data points, instead of 20-30 in the traditional ML methods. PayPal's fraud is relatively low at 0.32% of revenue, a figure much better than the 1.32% average that vendors observe.

- **Trading:** ML algorithms process large datasets at high speeds; and thus, can make accurate and immediate predictions for stock trading based on the current market situation. Most major investment banks have been utilizing trading platforms built on ML algorithms to trading as well as asset and wealth management. For example, UBS' trading system scans client emails for directions on how to allocate funds across different trading alternatives, and then processes and executes them. This method reduced the execution time for custom trades from 45 minutes to 2 minutes; providing more than 95% time savings.
- **Portfolio Management:** Recent portfolio management applicates use specialized algorithms that are created to design financial portfolios that are aligned with customers' goals and risk tolerance. These robo-advisor algorithms automatically allot customers' investments between a number of financial instruments and asset classes based on a number of parameters, such as their goals, age,

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risk appetite, income, etc. The robo-advisor continuously monitors customers' portfolios and adjusts investment allocations based on the given parameters as changes occur in the market conditions. Recently, the robo-advisors became popular among the young investors, who are comfortable with investing without human guidance, and not willing to pay fees to physical advisors.

- **Algorithmic Trading:** Algorithmic trading requires making very fast trading decisions. Recent applications of algorithmic trading involve the use of complex AI algorithms. Most hedge funds and financial institutions often make millions of trades in a day, thus automated trading algorithms and high-frequency trading methods are employed to keep up with the daily volume. In most of these systems, machine learning and deep learning play an increasingly important role in regulating real-time trading decisions.
- **Fraud Detection:** Modern financial fraud detection systems can learn and calibrate to new potential or real security threats through existing data, while previous systems depended heavily on complex and pre-recorded sets of rules. Modern systems use ML in finance for fraud; but the same ML techniques are popularly used for other data security problems. Using ML, systems can detect unique activities or anomalies, and flag them for further evaluation by the security teams. On the other hand, these systems need to avoid false-positives, which are situations where regular activities are incorrectly flagged as potentials risks. Modern ML techniques reduce human intervention by reducing false positives through self-learning algorithms.
- **Loan / Insurance Underwriting:** Large companies such as big banks and publicly traded insurance firms, ML algorithms have been trained on large amounts of consumer data (e.g. age, job, marital status, zip code), and their financial lending and insurance results. Future lending and insuring decisions are derived from the underlying trends that are derived by these algorithms, and continuously analyzed. These results have a tremendous yield for large financial institutions that has access to vast amounts of customer data and that can hire data scientists to train their algorithms.
- **Recommendations of Financial Products:** Today a number of applications for automated financial product sales are being used; and use of ML is becoming increasingly popular in these applications. An automated algorithm can suggest portfolio changes, and also provide suggestions for a particular car or home insurance plan. Increasingly personalized applications and personal assistants have been becoming popular among the customers of the financial institutions, as they are regarded as more objective, and reliable than in-person advisors. With more complicated ML methods becoming available to the financial institutions, similar to what is being used in the insurance industry conversations with financial personal assistants will do the same for financial products. (Faggella, 2018)

Benefits of ML

- **Higher Productivity:** ML applications bring continuous automation to improve efficiency in banking processes and operations. They reduce time taken to complete routine tasks, ensuring higher accuracy and less operating time for financial activities. In addition to providing productivity gains, ML also frees up the employees' times to focus on value-added task.
- **Lower Cost:** ML supported with natural language processing (NLP) improves customer relationship management (CRM) systems to address customer queries with meaningful and real-time

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responses. This enhances the customer experience by offering personalized service at a cost lower than training a human agent.

- **Bigger Revenue:** ML can produce targeted communication about new products and services to produce greater opportunities, thus increasing customer satisfaction and driving greater business revenues. ML applications can also be used to track customer activities, collect usage statistics and derive spending trends to redesign marketing strategies and develop more accurate forecasting models.
- **Better Compliance:** ML can be used to follow various regulatory protocols with minimal human supervision as a self-learning technology. Financial institutions use ML to reduce complexity of meeting regulations and avoid fines due to non-compliance. (Vij, 2017)

REGULATIONS

The scope of regulations has been expanding in the last decade. Public and government tolerance for financial institution failures has reduced since the global financial crisis, and further interventions using taxpayers' money to save financial institutions has been strongly opposed. After 2008, new regulations focused on the expansion of the regulatory framework by tightening controls over internal risk management applications. (Härle, Havas, & Samandari, 2017) There are still improvements needed in calculation models of regulatory capital and the potential use of a standardized approach; for example, Basel IV is expected to reduce the complexity of financial institutions' models to reduce differences between their internal modeling systems and the standardized approach. (Courbe, 2017)

In recent years, financial institutions have invested in their data and technology programs considerably. These programs involve innovative regulatory initiatives such as BCBS 239. These programs are mostly led by the risk and finance functions and run centrally. The immediate focus is on setting the fundamentals of risk management: improving operations and IT, enhancing risk management, and better supporting the business. Many financial institutions are also extending senior-management responsibilities to improve program governance and data-quality awareness, as these are key topics for the regulators. (Harreis, et al., 2017) In developing a culture of data-quality awareness in their business and support functions, financial institutions have started to improve data ownership and increase collaboration among risk, finance, and treasury.

Better Internal Risk Management Processes

Since 2008, financial institutions have developed and maintained emergency plans that prepared them in advance to respond in the potential events' poor outcomes. These emergency planning practices involve plans for recovery, liquidity funding, monitoring and response. The response plans aim to allow financial institutions to increase capital and reduce risk through asset sales, business sales, capital or debt issuances and other de-risking strategies. (Harreis, et al., 2017)

After the financial crisis of 2007-2008, governments around imposed a number of new regulations on financial institutions to reduce the possibility of similar future problems. For example, in the United States, actions were taken to prevent a systemic banking failure in the future, first through stabilization initiatives and, then through the new Wall Street Reform and Consumer Protection Act, also known as Dodd-Frank. That statute had a significant impact on the U.S. financial institutions, as the regulatory

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environment move toward an activist government role in regulating banks and the financial system. Consequently, bankers and regulators were forced to adapt to new operational, risk management and oversight frameworks. There is a clear recognition across financial institutions of the need for risk functions to evolve with the changing risk and business environment. There has been increased focus in the following areas:

- Allocate adequate resources to new and emerging risks
- Leverage new technologies optimally
- Risk analysis should be available to support key business decisions

For most financial institutions, significant operating model changes were needed to adhere respond to these areas. A financial institution has many stakeholders that include the board, senior management, employees, regulatory authorities, customers, and other financial institutions as lenders. Effective interaction with these stakeholders requires a financial institution to have good corporate governance practices. These practices include the processes, policies, laws, and regulations to create a transparent environment for the stakeholders to interact with each other.

Board Oversight of Risk

One of the innovative changes that financial institutions put into place is to increase board's oversight of risk. This includes eliminating layers between risk managers and the board and making the risk operations more transparent to the board. The board is comprised of independent directors and is responsible for innovative ways for independent oversight of management and risk through a governance structure that includes board committees and management committees. The board's standing committees that manage the majority of the risks faced by the institution include the Audit and Enterprise Risk Committees, comprised of independent directors, and the Credit Committee that include non-management directors. (Harreis, et al., 2017) This governance structure is designed to improve integrity over risk management throughout the institution by aligning the interests of the board and management with those of our shareholders. The principal responsibility of the board's audit, credit and enterprise risk committees is to provide the board with enterprise-wide oversight of how risk is being managed and handled within in the institution.

Risk functions have undergone significant transformation since the crisis, largely driven by regulatory changes across all aspects of the financial system, including models, risk frameworks, governance and data. Some of these regulatory changes require significant transformations in the industry, due to a number of new factors. For example, cost reduction, is a priority in many financial institutions, and needs to be delivered without compromising on the control environment. Most institutions believe that this would require further changes to the risk mandate, in addition to use of low-cost locations and performing major infrastructure changes.

Under new regulations, the office of Chief Risk Officer (CRO) being responsible to the board, oversees all risk functions to ensure that all financial operations are being done under the company's defined risk appetite. CROs have claimed that the operations are not designed to manage such risks, focusing instead on traditional risk types: market, credit and operational risk. As the management of these risks becomes more mature, there is a need to better integrate these risks into enterprise-wide risk management processes including board reporting and risk appetite setting.

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Outcome-driven alignment with other functions (i.e. finance and compliance) is critical to ensure that risk continues to respond effectively to changing business and regulatory environments. For example, many financial institutions have been actively identifying common impact areas to better capture dependencies between future regulations. Some have been working on identifying synergies with existing organizational priorities and required capabilities to gain better business engagement on key risk and regulatory investments.

The future risk function will also need to be better integrated with organizational change initiatives to support better alignment and effective use of technology investments. While some banks have done this well, with risk effectively embedded in the technology roadmap, most see this as an area for development. Several financial institutions have acknowledged the benefits delivered for the risk function from key front office investments. For example, insights from customers show that building a single user view for cross-selling has not materially improved the institution's view of integrated customer risk. (Feghali, Stylianides, Raina, & Goldner, 2017)

Considering all these, following steps can be discussed to illustrate what risk managers can do, to strengthen the innovation process in management of risk:

1. Work with the board and management to communicate their risk appetite for new innovations and how it relates to the institution's overall risk appetite. While setting risk tolerance is not always straightforward, doing it allows the board to set a risk policy for the entire institutions, and implements an ongoing monitoring process to maintain risks within the agreed tolerance levels. Innovation can be successfully achieved when more risk is taken than the institution would plan for. Once this is recognized, the board can set specified higher risk tolerances for innovation with a clearer vision on how it matches with the overall risk profile.
2. Review new ideas and associated testing plans to produce plausible outcome scenarios, and determine the risks associated with testing efforts. These efforts also provide confidence that the risks associated with these outcomes are within the relatively broad risk tolerances. Scenario testing and stress testing are important elements all risk management platforms. These testing methods are particularly important both prior to testing a prototype as well as analyzing results afterwards. Development of reasonable outcome scenarios provides the innovation team with better insights for developing controls and also helps identify which product features are most susceptible to producing adverse results.
3. Work with the innovation team to review testing results and assist in redefining product attributes and marketing strategies. Simultaneously, recalibrate risks associated with the product, and provide assurances that the recalibrated risks are within a narrower risk tolerance level. Post-testing analysis provides clues about whether the risks were fully understood, and also helps to further refine the product and market attributes as well as the controls necessary to keep the full product release within defined risk tolerance levels.
4. Assure that all the relevant controls are in place when the final product launch is recommended to the board. This final step brings the pieces together to help launch new product ideas and provide a level of assurance that downside risk is managed at the same time. More effective the risk management protocols are, the more likely it is that the board and management will enthusiastically support the organization's efforts. (Halpert, 2016)

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Risk Governance

Risk governance focuses on applying the principles of thorough corporate governance to the identification, management and communication of risk. It incorporates the principles of accountability and transparency in establishing policies and structures to implement risk-related decisions. Innovative methods for sound risk governance framework promote clarity and understanding of the ways in which bodies in financial institution execute their responsibilities.

Financial institutions have made innovative changes in their risk governance framework to enhance accountability and transparency; hence improve management of risk. A comprehensive risk governance operating framework has four main components:

- **Responsibilities:** Control responsibilities define the board's responsibilities, committee and management responsibilities, accountability matrices, and management hiring and firing authorities. The board carries out this responsibility across the financial institution in areas such as business and risk strategy, financial soundness, and compliance.
- **Organizational Structure:** A clear and comprehensive organizational structure defines how decision-making, risk management, financial and regulatory reporting will be performed in times of crisis. The organization structure includes the design and reporting structure, committee structures and charters, and control and support function inter-dependencies. (Comprehensive Standard 3.2.7 Organizational Structure, Chapel Hill)
- **Company Culture:** Behaviors and activities required for effective risk governance by establishing compensation and incentive policies, promotion policies and performance measurement management. These factors should reflect the financial institution's overall commitment to risk governance as well as risk taking for rewards.
- **Infrastructure:** Reports, measures and metrics, management capabilities and enabling information technology (IT) support for risk assessment and management are critical for risk governance. Reports for regular audits, user right management, network and data security are essential parts of the risk framework.

The four major components of the framework have subcomponents that describe the activities required to create an effective risk governance operating framework. These activities ensure that the financial institution defines and documents the processes, procedures, and reporting mechanisms required to make the framework effective. (Comprehensive Standard 3.2.7 Organizational Structure, Chapel Hill) For example, new regulations require all new products and models go through a number of committee approvals. Financial institutions create online tools that utilize users across many departments to oversee risk assessment and approvals, and also maintain approvals in centralized data warehouses. New reporting tools are created for better auditing and monitoring.

The risk management area has been a primary focus for the financial industry; while other business make use of tight and established operational risk management processes. A number of examples for how operational risk management is being used in different industry verticals is given below:

- An HR manager mistakenly sends sensitive employee information to unauthorized people.
- Due a skipped inspection, low-quality material causes work place accidents.

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- Maintenance staff does not take pre-emptive action before sensitive equipment failure and it causes dangerous work environment for employees.
- Approvals are rushed and thus missed for an important expense.

Risk Assessment

Regardless of the risk types, impact of risk can be disastrous for companies, as they may require paying huge fines and fees when they fail to assess the legal risks; may waste money on erroneous purchases, cause accidental threats to employee's health and safety when they fail to establish controls to manage operational risk. Therefore, businesses are required to regularly assess risks and their potential impact on their operations. Generally speaking, risk assessment consists of the following; not necessarily in that order:

- Risk identification
- Risk assessment (potential impact of each risk type)
- Risk mitigation and strategy.

For most risk types, financial institutions need to adjust the existing business processes or create new ones to mitigate risk. Institutions that already have workflow automation processes in place find it easier to create approval workflows, monitoring dashboards and better auditing practices. These improvements enforce compliance with the new risk mitigation processes and can be easily included within the existing risk procedures. While using workflow systems are helpful to manage financial risk; there is a number of factors that need to be considered while designing risk workflows:

- **Identify Tasks**
  - Find out the specific tasks that are required to assess and manage financial risk within the institution. Each task has to correspond to an individual repeatable business process.
- **Split Tasks into Processes**
  - Tasks that are used in risk assessment are generally complex and require involvement from different teams and departments. Split the large tasks into smaller processes that can be executed and assessed by individuals.
- **Assign Processes to People**
  - Make sure that each process is assigned to and handled by the right people. In most large financial institutions people hold multiple roles; they should be assigned to the correct set to processes.
- **Automate Processes**
  - One of the goals of the workflow systems is the reduce the need for human intervention and thus eliminate human errors. This is essential to manage operational risk. Find out the processes that can be automated easily and convert them to automated workflows.
- **Find Out Exceptions**
  - Most risk situations occur due to unforeseen circumstances and not having a plan to remedy the situation. Make sure that exception cases are studied, and remedy plans are in place.

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- **Create Long-Term Plan**
  - Factors that impact risk change over time. Last year's risks and mitigation strategies may not be valid in today's environment. Therefore, constant monitoring and assessment is mandatory for risk assessment frameworks. (Wortman, 2017)

Process Workflow Approval Tools

Obtaining approvals usually involve many people scattered across different domains. Approval management is often difficult through emails or paper; as they can be missed or get messy. Workflow approval tools (also known approval management engines or) are used to replace these old school, manual processes with workflow automation. (Approval Management, 2018) Workflow approval tools aim to establish the following:

- Use digital signatures to automate process approval.
- Database-driven change tracking
- Use approval dashboards to review changes and provide approvals.
- Faster and better auditing through individual date stamped records for every edit and approval.
- Collaboration on process reviews

In order to achieve growth through a balanced and rigorous management of risk and reward; the board of Directors provides oversight by delegating authority to certain board and senior executive committees. These committees delegate authority to subcommittees or management, as appropriate.

As part of the risk management policy, each new transaction(s) must first be reviewed and approved by appropriate business unit management and other senior business representatives as necessary. The transaction will have a designated business representative who will "own" the transaction throughout its lifetime. Depending on the complexity of the transaction(s), Risk Management may also require approvals from more senior-level business managers.

New transactions need to have the sponsorship from business management prior to seeking approval from support groups. The level of seniority of the business manager sponsorship is commensurate with the complexity and perceived magnitude of the potential risk of the transaction. Upon receiving sponsorship from senior business management for the new transaction, the business should compile documentation about the transaction by preparing a Transaction Approval Package ("TAP"). The completion of a TAP may require the identification and input of various support partners depending upon the level of complexity of the new transaction. It is the responsibility of the business unit requesting approval for a new transaction(s) to ensure that the intent and complexities of the transaction(s) along with the risks and mitigants are fully documented via the TAP. The TAP shall provide the support partners with enough information to approve/reject the transaction and analyze the risks involved.

Upon completion, the business submits the TAP for review via the approval system, the approval workflow system. The approval of new transactions is documented in the approval system regardless of how the new transaction is approved. Type of the transaction determines the flow and who the approvers will be. If it is a new initiative or a new product, the transaction may need to be approved by more senior people, while transactions that need to go on a fast track may skip some of the steps in the flow for faster

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processing. Also, for some transactions, approvals from additional support partners (i.e. Model Validation, Local Regulatory, Business Continuity, Treasury etc.) may be needed based on the issues involved. Each transaction is stored in a company-wide transaction warehouse, along with information about its approvers and supplement documentation. The warehouse is essential for controlling risk across many domains. All functions of the financial company can access the transaction warehouse for day-to-day operations, as well as for auditing and reporting purposes.

SOLUTIONS AND RECOMMENDATIONS

This book chapter discusses how financial institutions make use of new advances in technology, and new regulations for better risk management. While technological improvements and better regulations constantly become available to the financial institutions, some adapt these in their risk management processes and applications faster than others. Those institutions eventually have edge on customer satisfaction and cost cutting over the slow adapters. As discussed in this chapter, most technological advances such as biometrics and machine learning are being used to improve customer experience while reducing operational costs and improving financial risk at the same time. More and more financial institutions have to adapt to new advances in order to stay in the business.

FUTURE RESEARCH DIRECTIONS

In this book chapter recent use of data mining, machine learning and biometrics in financial applications is discussed. Although machine learning and data mining have been in the literature for a few decades, their use in financial applications for risk management is relatively new. Financial institutions find better and more efficient applications of data mining and machine learning as size and quality of data that they have improves over years. On the other hand, use of biometrics in technology is a new research area; and as discussed in this chapter initial applications of biometrics in finance involved fingerprinting, which newer applications use face recognition that is a robust authentication method. As more advanced smart devices and algorithms for biometrics will become available, financial institutions will adapt them in their applications over time. A new research should be done to discuss the new application areas of data mining and machine learning, as well as improvements in biometrics technology.

CONCLUSION

Along with stricter regulations and tighter rules, financial institutions have been producing innovative methods for better risk management by adapting new technologies. Recent applications of online banking, digital wallets, data mining and machine learning allow financial institutions provide better operational security, analyze customer activity to detect and prevent fraud, offer personalized products and discounts to improve customer satisfaction, and perform more accurate background analysis for credit decisioning. These applications help financial institutions manage various risk factors such as market, credit, transaction and reputational risk. In addition, changes in regulations forced the financial

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institutions to remodel their internal processes for better visibility, monitoring and accountability of risk factors. This chapter discusses a number of recent applications of technology in financial risk management and shows how they have been utilized by various financial institutions. Also, this chapter argues that technological advances are supported by innovative regulations and adaptations by the financial institutions for better risk management.

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KEY TERMS AND DEFINITIONS

AI: Artificial intelligence.

AML: Anti-money laundering.

BCBS 239: Basel Committee on Banking Supervision, standard number 239. It contains 14 principles aimed at strengthening risk data aggregation and reporting that touch upon key areas of systemically important banks.

Dodd-Frank: Dodd-Frank Wall Street Reform and Consumer Protection Act.

ML: Machine learning.

NFC: Near field communication. It is a form of contactless communication between electronic devices such as smartphones and tablets.

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Chapter 9
Management Style as a Strategic Tool and Its Effects on Organizational Results

İlknur Taştan Boz
Trakya University, Turkey

ABSTRACT

Achieving her targets regardless of whatever sector a business has been operating depends on the way she converts various organizational outcomes into favorableness. Organizational outcomes that may affect the performance of businesses include job satisfaction, organizational commitment, corporate reputation, strategic orientation, organizational creativity, and other points. In the literature, it is seen that the management style is one of the variables that are effective for favorable or adverse organizational outcomes. There are different classifications related to management style. According to many researches, it can be said that the most commonly used classification of management styles includes democratic, participatory, laissez-faire, and autocratic. When the results of researches have been examined, it is regarded that making a generalization related to which management style can always be applied as the most appropriate one is tough.

INTRODUCTION

The management concept is the subject of every field where the people have been present from past to present. Management can be defined as the process of making or carrying out work effectively and efficiently through others (Robbins & DeCenzo, 2008). The concept of productivity in this definition is to produce the desired output with the minimum resources (raw material, money, human) without wasting them and productivity is related with the means. It means “doing things right” and refers to the relationship between input and output. The concept of effectiveness is the degree to which the stated goals are achieved and concerns the outcomes. It means “doing the right things”. A decent administration is about both achieving the goals and making it as efficient as possible (Daft & Marcic, 2009). It is not easy to create a collective understanding even if the activities to be carried out in the enterprises are

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determined correctly. Management practices are often based on a complex understanding shared within the organization. Today, businesses are experiencing various changes both from the source of work and from the environment. These changes consist of shifts in competition and globalization strategies, processes initiated or restructured by organizations related to business law, business ethics, approaches in management philosophy areas, developments in information management and information technologies, start of new management techniques, differences in organizational structures, organizational behavior and human resources, labor mobility, and demographic changes. One of the ways to cope with these changes is seen as strong administrative processes. Surveys indicate that productivity, profitability, growth and life span are better in organizations with strong managerial processes. Creating a strong managerial process brings a management style that can cope with the changes both inside and outside the organization.

In terms of employees, a positive or negative attitude by the manager is perceived as a sign of corporate activity because the manager must have a say in management authorities and assessing performances. Several studies exhibit that managers can take on a different role for each factor affecting the performance of employees and improve the performance. It can be argued that because managers influence employees and their performance in organizations, it is necessary to underline their tendencies and behavioral patterns, in other words, the conscious approach to the management styles they use when managing. In terms of organizations, management style is the way a company's management controls and manages its employees based on attitude and leadership and the employees' perception of the corporate identity, image, and culture (Olmedo Cifuentes & Martinez Leon 2014). Managers adopt different management styles when performing their duties. While some of them show the same management style, some managers show different management styles according to the circumstances and employees. Some managers want employees to participate in decisions, while some just want them to fulfill given orders. Some managers do not decide, they seem to leave the work and the way the works is done to the employees. These approaches of the managers reveal distinctive styles. Descriptive and integrative information on the effects of distinctive styles are not adequately included in the literature. It is important to address the shortcomings mentioned, to understand the concept of management style, to determine what kind of management styles exist and to show its effects in terms of organizational results.

For this reason, the concept of management style is explained after introduction. In the section secondly, there are classifications on management styles. Moreover in this section, using previous research findings about the relationship between the management style and organizational results are found. Finally, in the last section, necessary recommendations and conclution are given

MANAGEMENT STYLE CONCEPT

The role of the managers is considered as guiding to achieving the organizational goals. All organizations exist for specific goals and objectives, and managers are responsible for employing and consolidating organizational resources to ensure that they achieve the organization's goals (Certo, 2003). When managers perform these roles, they behave in a certain way or style. While this exhibited behavior constitutes the management style, various directions are underlined in explaining the concept. When describing the concept of management style and examining the points emphasized in its explanation, various frameworks that are used as reference draw attention. While some researches reveal the management style with managerial behavior, some researches explain it in terms of management process. Also, some researches explain the concept by considering both managerial behavior and management process. Those

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studies that approach management style concept in terms of the behaviors of a manager define it as the manager's approach and attitudes toward employees and the way he applies the rules (Athos & Pascale 2000; Erdil, Kekin, İmamoğlu & Erat, 2004 ; Hoang, 2008). According to Benfari (1999), who views the management style in terms of the behaviors of the manager, manager's view of human being as a reflection of his personality, the way he perceives the world and the phenomena around the world, his personal structure, his other behaviors including human relations, decision making, and problem-solving methods constitute not only his personal goals but also his own style in the process of reaching organizational goals as a manager. In addition, the opinions, beliefs and emotions that managers have about the human being, the organization and the management, and the values they give form the management styles by influencing the management understanding (Başaran, 2000). Management style is considered to be a certain behavioral pattern that managers adopt to motivate employees to achieve organizational goals (Shahmohammadi, 2015). While forming the management style, the behavioral patterns expressed in the approach are important in determining the implicit, unpredictable and spontaneous reactions. For this, it is stated that suddenly formed reactions of the managers will assist in predicting their style (Hoogh et al., 2005).

Those who approach management style in terms of management process define it as decision-making, traditional management functions, and application of business values (Kras 1995; Welge, 1994; Poon, Evangelista & Albaum, 2005). According to French industrialist Henri Fayol, traditional management functions consist of five management activities including planning, organizing, executing, coordinating and controlling that all executives perform (Robbins, Decenzo & Coulter, 2013). According to those who view it in terms of management processes and managerial behaviors, there is a conclusion that they cannot be separated from each other. Approaches in this respect defines as the way of management, the structure of the relationship of the manager with his subordinates, the manner of authorizing them, the rewards and punishment mechanisms, the beliefs of the manager, and the behavioral characteristics.

Beyond the above-mentioned points of view, the attempt to explain the concept in terms of a wider perspective emphasizes the similarities and differences in national and cultural values. In relation to this, studies conducted to determine the cultural values of different countries are exemplified. In their studies, those who approach from this point of view are moving from the point of determining the management style of countries' cultural values such as American management style, Japanese management style and German management style. A study explaining the influence of cultural values on the management style compares Japanese and American management styles. It is stated that the management styles of these countries are not similar to each other. This dissimilarity is considered to be due to differences in their respective social fabrics. It is becoming increasingly clear, moreover, that both of these management styles have strengths as well as weaknesses. The most basic result, as expressed, in the Japanese management style, it is focused on people while it is business duties that is focused on in the American management style (Totoki, 1990). For this purpose, another study has determined the influence of the cultural values of different countries on the management styles. In the study mentioned, values were measured in the original four dimensions of Hofstede (1980, 2001). The results exhibit that significant differences in management style exist among managers from different countries, and that cultural values have explanatory power (Albaum, Yu, Wiese, Herche, Evangelista & Murphy, 2010).

As a general evaluation of the management style concept, it can be concluded that cultural values, in other words taking cultural values of each country into account, play a significant role in implementing management processes and shaping managerial behaviors, along with the cases where managerial behavior, management process or both coexist.

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CLASSIFICATION OF MANAGEMENT STYLES

Managers in businesses differ according to their organizational levels which are first level, middle level and top level. In each level, managers have to perform many roles in an organization and how they handle various situations will depend on their style of management. These roles are generally divided into interpersonal, informational and decisional roles. The mentioned roles represent activities such as planning, organizing, directing and controlling functions in the management process (Gökçe & Şahin, 2000). Managers exhibit different management styles during the execution of the specified activities. Depending on the business circumstances, a manager might need to employ more than one management style in a more or less formal way to achieve the highest degree of effectiveness in their role. There is no single classification of an management style. Different authors and different schools classify them in a different way. Different classifications emphasise specific characteristics of an management style, according to which they identify and describe certain types of management styles.

Driver and his colleagues classify the management styles in relation to the decision-making process. According to this classification, management styles consist of decisive style, flexible style, hierarchical style, integrative style, systemic style (Driver, Brousseau & Hunsaker, 1990).

- **Decisive Style:** This style uses very little information to make decisions. Speeches and actions are relatively flat. In this way there are well defined tasks. Hierarchy is not very reputable. A time and some solutions are used to solve the problems.
- **Flexible Style:** Less information is used as in decisive style. The problems are solved according to the discussions in the group. It is a management style in which the rules are less used, there are broad duty definitions, and the organization is less structured.
- **Hierarchical Style:** Hierarchical style requires the manager's clear plans and use of as much information as possible to apply a selected decision. However, the process is carried out with a detailed and centralized control mechanism.
- **Integrative Style:** This style is expressed as the use of a great deal of information. Individuals in the organization are busy with many alternatives to be able to decide. A non-rigid organization, developed projects, acceptable conditions are preferred.
- **Systematic Style:** This style is expressed as a mix of hierarchical style and integrative style. Managers highlight priorities to solve problems and underline detailed strategies that lead to problems. There are also short-term specific plans and measurable objectives.

The above classifications show the way a manager conducts the decision-making process, which is one of the most fundamental roles.

A classification in terms of management style is viewed in a study conducted by Olmade and Martinez-Leon (2014). The classification is called participatory and competitive management style. Accordingly, it is stated that the participatory management style is more democratic and relationship oriented. It is explained that the competitive management style is autocratic and task oriented. Moreover, in the competitive management style, it seems that the manager has brought the situation of the personnel to worry about the reward for the achievement of the objectives and consequently team work is deteriorated. Another classification is similar to the participatory and competitive classification, but also the relationship and task-oriented management styles often included in leadership studies. Relationship-orientedness is the management's sense of value, respect, trust, and management style of high quality relationships

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towards subordinates. Basic parameters consist of communication, responsibility, trust, friendship and socio-emotional support. The style designated as task-oriented predicts the strict supervision of the employees primarily for the success of the task. The role of a task-oriented manager is to determine the roles of the employees in the department, to describe the organizational places and to make plans by putting forward expectations, to transfer information and to distribute tasks (Giray & Güngör, 2015).

In some studies management styles are not separated by exact lines. In this approach, management styles are explained by some factors related to the management process. In the study conducted by Albaum, Yu, Wiese, Herche, Evangelista & Murphy (2010), the factors determining the management style are information evaluation, quantitative planning, individual decision making, advanced planning and information use. Information valuation reveals the need to obtain good market information and to spend money on it. Quantitative planning involves analysis using quantitative data in decision making. Individual decision making refers to the desire to take risks, including not always listening to others or making decisions. Advanced planning shows the importance of planning in decision making. Information use, on the other hand, refers to the application of knowledge if it is useful in supporting new knowledge from existing beliefs and if it can lead to a change in decisions (Albaum, Yu, Wiese, Herche, Evangelista, Murphy; 2010).

The most common classification describes management styles as autocratic, democratic, participatory, and laissez-faire management. It is also the most frequently categorized classification in the studies done in the literature, together with the organizational results. The disclosures for each type of management in relation to this classification are given below, respectively.

Autocratic Management Style: In autocratic management style, a manager dictates orders to his subordinates and makes decisions without any consultation. Decision made is quick and work is usually completed on time. The manager likes to control the situation the organization is in (Tomášková & Kopfová, 2011). Autocratic manager intervenes very often in work; the employees have purely performing activities. They are given directions by their immediate supervisor and they should observe them. Managers who have autocratic style of management are perceived as giving orders. Behavioral elements that stand out in this way are seen as the way in which managers make all their decisions, focus on their success before their job satisfaction, leave a wide social distance from their subordinates, use punishment as a motivational tool, or use threats (Rast, Hogg & Giessner, 2013).

Democratic Management Style

Democratic management style is characterized by empowerment. Individuals and teams are given the responsibility to make decisions, usually within a given framework. The team is then responsible for the decisions that it chooses to make. Thus, employees feel a sense of belonging and are motivated to fulfill the decision, while both improve the efficiency. On the other hand, democratic management style can slow down the decision-making, because of the consultants with the staff (Tomášková & Kopfová, 2011).

Within the understanding of democratic management style, manager intervenes more rarely in the work of employees, and in the presence of convincing arguments shows compliance. Innovations and non-traditional solutions are stimulated. According to Costley, Santana & Todd (1994) study, it has advantages and disadvantages of democratic management style. The advantages of a democratic management style are the increase in taxation due to employees having the possibility to participate in the management, the increase in the loyal commitment and the versatility of the communication within the organization is shown as providing communication with the upper levels at the same levels and providing

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mutual trust within the organization. The disadvantages of the democratic management style are that it allows complexity in duties and powers, slowing down processes due to the involvement of more than one person in the decision-making process, and causing employees to make erroneous decisions due to their overconfidence.

Laissez-Faire Management Style

The laissez-faire statement is also used for this management concept, which is also known as "liberalist management style" in the literature. According to Cengiz (2010), in this management style, it is considered that the management level is not very necessary and it can make the best decision without the opinion of the management level of the employees. It is emphasized that the manager who adopts this type of management does not follow any policies and procedures and allows subordinates to work on their own and make their own decisions (Cunningham, Salomone & Wielgus, 2015). In order to achieve success in this management style, it is expressed that young people who have higher education and desire to rise, who have enough responsibility and ability to work alone and who are able to work alone must be chosen among the young candidates (Yozgat, 1989). Today it is stated that the autonomous management style is suitable for the research and development departments of the enterprises in the work of the scientists who are required to produce more innovative ideas. Because, in this management style, the success of the organization depends on the success of the members of the organization, it is necessary for the employees to have a high sense of responsibility and to be an expert of their own work (Türkmen, 1994; Erol, 2006).

Costley et al. (1994) discuss the advantages and disadvantages of the liberal management style as well as the democratic management style. The advantages of the liberal management style are that employees can increase their level of satisfaction by decreasing their own monotony, by being open to the horizontal communication channels of the organization, by providing wide authority to the employees and by reaching the results quickly by taking initiative in the emerging situations and by being able to act independently. Disadvantages of the liberal management style are the disadvantages of the excessive freedom in the environment and the decrease of the interest in productivity among the employees, the possibility of the employees being abused due to the self-monitoring of the employees, the uncertainty of authority may arise and the events may be out of control, especially in times of crisis and lack of leadership.

Participatory Management Style

In the management style, which is expressed as participatory management, employees in the organizatio should participate in the decision-making process by the means of voting in matters that concern them through direct or indirect mechanisms. Participatory management style is regarded to lead to positive feelings of being liberalized by consulting with some strategic decisions (Özkalp & Kırel, 2001). However, in a study assessing the implementation of participatory management, it is seen that there is not enough room for participation in subordinate decisions. In terms of gender, there is no different perception of participation (Rolková & Farkašová, 2015). For this reason, it is necessary to increase the participation of subordinates in participatory management and to accommodate the elements that provide it.

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In the realization of participatory management style, various elements and features are emphasized in order to ensure employees' participation in management. These are (Shah, 1997; Hajzler, 2011 transmitted by the Rolková & Farkašová, 2015);

- **Commitment:** Employees voluntarily commit to do their tasks, they are willing to negotiate about the objectives and procedures.
- **Mastery, Autonomy and Meaningfulness:** The more built for them, the stronger the intrinsic motivation of employees. The more of them are present, the higher intrinsic motivation of employees.
- **Employee Self-Regulation:** The work should be organized well and the manager should not need to direct the employees.
- **Mental and Emotional Commitment:** It emphasizes the importance of more psychological and intellectual participation than physical.
- **Motivation to Make a Contribution:** Participation reveals the creativity of all employees. Participation should reveal motivation, especially by helping employees understand and clarify their path to their goals.
- **Taking Responsibility:** Participation should encourage people to take responsibility. The mentioned factors are important elements in the implementation of a participatory management style.

As seen above, various researchers use different management styles in their work. It is not correct to make a generalization of what is the proper management style for each business. From the point of view of modern management theories, we can say that there is not always a valid way. For this reason, various factors can be determined in the selection of the management style in terms of the enterprises and the management style can be determined in the direction of these factors. The manager's behavior is realized with effective management style. Factors that are important in the selection and shaping of appropriate management style are (Werner, 1993 transmitted by the Batmaz, 2012);

- **The Personality Trait of the Manager:** As a consequence of managerial experiences, some behaviors do not feel uncomfortable during certain behaviors, or sometimes feel uncomfortable in certain kinds of behaviors, while being more appropriate for them.
- **The Life Philosophy of the Manager:** The values of the manager are the guidance that guide their behavior. From a moral point of view, a hard-hearted person can do things that a sensitive person can not even think of.
- **Characterization of the Working Group:** The manager should define the members of the organization well. Each member has its own characteristics and has distinctive qualities within the organization.
- **Higher-Up and Subordinate Relationship:** The interaction between the manager and his employees is critical and requires a special approach.
- **The Impact of the Manager on Supervisors and Other Persons with Organizational Competency:** Leadership efforts of the manager can be wasted without supervisors' decisive backing and co-operation of key organizational personnel.
- **Relation of the Manager to the Other Sections:** Negotiations, adaptations and adaptation in complex institutions are included in everyday work.
- **Task Requirement and Working Environment:** The opportunities and obstacles to effective management differ according to the situation.

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- **The Needs of Organization:** Organizational philosophy, atmosphere and pace and the pressures on the organization determine the management style.
- **Group Appearance Management Style:** No manager can survive for long periods of time in the case of members' requests.

In another study explaining the factors affecting the shaping of management styles in organizations, it is divided into objective and subjective elements. These elements can be seen in Table 1.

When the factors listed in Table 1 are examined, it is important to consider these factors in determining the management style. Objective factors are the elements affected by the environment. Subjective factors are concerned with how well personal skills are developed. Regardless of the factors mentioned, it can be said that it is not right to choose a style that does not match the manager's skills, education, or organization's characteristics.

RELATIONSHIPS BETWEEN MANAGEMENT STYLE AND ORGANIZATIONAL RESULTS

When the literature is examined, it is understood that the management style influences various organizational results occurring in the organizations. These organizational results include job satisfaction, organizational commitment, organizational creativity, strategic orientation, corporate reputation and other variables.

Job Satisfaction

It is defined as mental and emotional attitudes of employees towards their jobs as a result of their experiences in working life (Eğinli 2009). In many studies, there is a significant relationship between job satisfaction and high performance (Türkoğlu & Yurdakul, 2017;Türesin, Tetik, Oral Ataç & Köse,

Table 1. Objective and subjective factors shaping management style

Objective Factors	Elements of the factor
Spesific of the managed organizations	Activity aims, nature of organisation performance (type of provided services), target market (sex, age, education), funding for the activity, cooperation with other organisations, strategic planning of organisation activity
Specifics of the addressed issues	Motives of members to participate in the communal activity, participation of volunteers in the communal activity
Peculiarities of the managed staff	Competence of organisation members, motivation of organisation members
Career path and school of the manager	Levels of manager's career, direct managers
Subjective factors	**Elements of the factor**
Manager's personal qualities	Manager's psychological characteristics, level of manager's intelligence, selfconfidence
Reason of manger's emergence	Manager‘s formal duties in the organisation, the level of manager's authority
Education	Professional knowledge, manager's qualification, manager‘s competence

Source: Marcinkevičiūtė, L Žukovskis, J. (2016) Factors Shaping Management Style of A Manager: A Cace Kaunas District Non-Governmental Organizations,Reseach for Rural Development, volume 2, 121.

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2018). High level of job satisfaction, along with high performance and quality of work life, makes it more important to determine the management styles that will increase job satisfaction. Batmaz (2012) examined the impact of democratic-participatory, autocratic and self-sacrificial management styles on employees' job satisfaction in a survey directed to managers working for organizations that operate in the defense industry to explain the relationship between management styles and employee satisfaction. Findings of the research indicate that employees working with a manager who exhibits a democratic-participatory management style have a higher level of job satisfaction while job satisfaction is low when employees are working with managers who are autocratic and fully self-aware. There are other research results similar to the above research related to the effect of management style on job satisfaction. It also has been found that employees' job satisfaction levels are higher when the managers adopt democratic management style in decision-making processes (Yukongdi, 2010).

Organizational Commitment

It is defined as the relationship between the organization and the employees and the resultant connection of the employees to the organization for which they work (Uludağ, 2018). There are numerous studies measuring the effects of organizational commitment on the business. Most of these studies show positive relationship between organizational commitment and business performance. In addition, the decrease in organizational commitment is accompanied by the intention of quitting the job or leaving the work. When the studies conducted to determine the effects of management styles on organizational commitment and leave of employment is examined, findings suggest that employees are less willing to participate and are less motivated when they work with a manager who adopts autocratic management style toward his subordinates. A manager who is overly oppressive in the decision-making process weakens the employees' loyalty and it is concluded that employees will not show the necessary commitment to the work. The thing that will change the situation is the sacrifice that the manager will show without his own interest. The sacrifice of the manager is seen as one of the positive aspects that changes his subordinates' attitude (Cremer, 2006). In another study, it was found that, in organizations where autocratic management style is observed, group members are unhappy because they cannot provide control and there is no situation in which they can be included in the decision processes. It is stated that employees tend to leave their work when they cannot find the opportunity to report their complaints within the organization (Vugt, Jepson, Hart, & Cremer, 2004). In another study that showed similar findings in the same way, the autocratic management style had negative effects on the development of nurses. According to this, it has been determined that the application of autocratic management style to reward and punishment mechanisms causes the nurses to become demoralized and consequently it increases the turnover rates (Huda, 2014). According to Ulutaş (2011), there is a strong and positive relationship between the participatory management style and the organizational commitment in the study conducted with employees working for manufacturing operations. In a sense, organizational commitment increases when managers involve employees in the decision-making process.

Organizational Creativity

It is the result of employees' ability to design and produce innovative ideas, new processes, and new products that will be useful to organization. One of the factors that provide organizational creativity is the behavior of the managers supporting creativity. For this reason, when the literature is examined, it

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is seen that the management style which contributed to organizational creativity has been studied on the employees in manufacturing enterprises. Among the results of the mentioned research, a strong and positive relationship was found between participatory management style and organizational creativity. The main point on which this determination is based is that creativity is raised to a higher level when managerial decisions are made taking into account the proposals of subordinates and based on the proposals of subordinates (Ulutaş, 2011). It is evident that the relationship-oriented management style, one of the management styles outlined above, improves innovation activities by increasing trust and cooperation among employees (Yukl, 2008).

Strategic Orientation

It is defined as behavioral trends that influence the formation of business strategies (Usta, 2011). Strategic orientations include the market orientation, the learning orientation, the entrepreneurship orientation and the information orientation. Tomášková, Kopfová (2011) found that the management style influenced the market orientation. While expressing the advantages and disadvantages of all the democratic, autocratic and participatory management styles in their study, it is stated that the characteristics of high technology enterprises contribute to the implementation of democratic management style.

Corporate Reputation

Corporate reputation has long been recognized as a significant source of competitive advantage and as a value creating resource that delivers consistent and superior market performance. Corporate reputation is a holistic view that is the result of evaluations that have formed over time, as to how reliable, respectable and valuable it is perceived by all stakeholders (Işık, Çicek & Almal, 2016). It is also defined as a perception of what an enterprise has done in the past and what it will do in the future when compared to competitors (Olmedo Cifuentes & Martinez Leon 2014). In the literature, there are a few studies examining the relationship between management style and corporate reputation. One of these studies, Dutot (2017), has investigated the influence of the executive management style of 246 small and medium-size enterprises (SMEs) on the strategic orientations of enterprises, information technology capacity and corporate reputation. In the study conducted, the measuring instrument used to measure the management style did not focus on a particular style. The questions of the measurement tool are assessed by the questions whether the manager supports his or her employees at various levels of competitive strategy, whether they include employees in operational and tactical decisions, whether they share their ideas with employees, and the level of managerial commitment to the manager. We can draw the conclusion that the high score from the mentioned questions, the management is in a participatory manner. The findings of the research indicate that the management style influences corporate reputation both directly and indirectly. Indirectly, it was determined that the management style influenced corporate reputation by influencing the strategic orientation and capacity of information technology (Dutot, 2017). In a different study, corporate reputation was researched in terms of the impact of manager's participatory or competitive management styles and demographic variables. Among the results of the research, it is seen that the participatory management style more improved the corporate reputation compared to the competitive management style. (Olmedo Cifuentes & Martinez Leon 2014).

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Other

There are various studies that investigate the influence of management style in the enterprises in relation to efficiency, efficiency, performance, well-being and demographic variables. According to a research on productivity, autocratic and democratic management styles are compared in terms of efficiency. In this study, contrary to previously mentioned organizational outcomes, autocratic management style yields higher efficiency outcomes compared to democratic management style (Fadely & Fadely, 1972). In a research, it is examined whether the management style is influential in factors such as growth, income and profitability, which are considered as performance indicators in terms of franchising companies. The transformational management style balancing the relationship between the two sides positively affects the performance of franchising enterprises (Peris-Ortiz, Willoughby, Rueda-Armengot, 2012). In another study, the influence of authoritarian and participatory management styles on the development of professional skills of information specialists has been examined. Among the findings of the research, participatory management seems to have positive effects on the development of knowledge workers (Yu, Fang, Wang, 2016). An empirical research also suggests that managers prefer autocratic management style for their own activities (Kocher, Pogrebna, Sutter, 2013), without considering the preferences of team members. Spinelli's (2006) study of hospital administrators examined management styles and managerial effectiveness. In the study mentioned, it is seen that the efficiency of the managers with the hierarchical management style on the employees is low. (Spinelli, 2006). Despite the stated negative result, another study found that the self-serving style of management is facilitating the solution of the conflicts (Riaz, Batool, Riaz, Shujaat, & Akhtar, 2013). Research has also shown that the well-being of employees is positively affected by the paternalistic management style (Mansor, Wai, Mohamed & Shah, 2012). It is also indicated in various studies that men and women run their organizations by different management styles (Coyle 1993; Rutherford, 2001).

SOLUTIONS AND RECOMMENDATIONS

The management style should be seen as an important strategic tool because it brings out important results in the organization. Acording to organization conditions, managers should understand what management style can contribute to the organization.

FUTURE RESEARCH DIRECTIONS

The studies conducted in this realm give some signals about management styles and their possible results, it can be said that generalization is not right. In addition, the relationship between management style and organizational results must be subject to further research. One of the studies that can be done in terms of other researches is the need for more extensive studies on management style classification.

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CONCLUSION

The style of management, which is one of the determining factors in the success or failure of an organization, determines the way of doing things and the way of continuing the management process. Businesses succeed with different management styles. One of the most common findings is that democratic and participatory management style has positive effects on job satisfaction and organizational commitment and corporate reputation, but managerial efficiency, productivity and some results are not the same. Besides, the effects of the management styles differ according to some characteristic features specific to the business such as sector, size, job quality.

One of the notable points is that as long as the management style, the goals of the business, and the different dimensions are consistent with each other, it creates favorable outcomes. Even though research results relatively contribute to the determination of appropriate management style, objective factors arising from the environment and the subjective elements arising from the manager must be taken into account while choosing the management style. For example, if the personality of the manager is not suitable for being authoritarian, authoritarian management style may not produce the expected effect. Implementing an authoritarian management style for a work that requires creativity may not yield a good result in terms of efficiency.

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KEY TERMS AND DEFINITIONS

SME: It means non-subsidiary, independent firms which employ fewer than a given number of employees. This number varies across countries. The most frequent upper limit designating an SME is 250 employees, as in the European Union.

Strategic: It means relating to the identification of long-term or overall aims and interests and the means of achieving them.

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Chapter 10
Paradigm Change in Strategic Management

Mustafa Atilla Arıcıoğlu
Necmettin Erbakan University, Turkey

Büşra Yiğitol
Konya Food and Agriculture University, Turkey

ABSTRACT

In this chapter, three fundamental paradigm changes related to strategic management are discussed and analyzed. Firstly, change of the long-term concept is emphasized. Reasons such as the emergence of global enterprises, increasing number of tools using on prediction of future, as well as the increasing complexity in business world shows that time-based mentality of planning that used by public strategy is no longer valid. The second discussion is the strategic consciousness that is not included in the strategic management process and is ignored in most of the strategy literature. The level of strategic consciousness refers to the ability of organizations to be aware of environmental changes. Therefore, strategic consciousness should be included in the entire strategic management process. The third discussion is that strategic management is not valid for SMEs. Because of characteristics, it is not possible for SMEs to have a strategic point of view.

INTRODUCTION

Strategy was known as a military concept before Ansoff (1972) introduced "strategic management" term into the management literature as "planning". After Ansoff's narrow definition, many researchers wended into this area and contributed to the literature. Soon after the area of strategic management became so popular, many approaches emerged such as: global factors, awareness of the management mind and management components, new discoveries and discussions on the environment, dynamic structure of components for instance competition and organization. Strategic management has become essential to sustain competitiveness for organizations in the global market structure and increase their adaptation in unsteady environmental conditions (Ansoff, 1991).

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There is a wide range of workplaces that engaged in strategic management (Mintzberg, et al. 1998: 354-360). Porter (1980, 1985, 1990, 1996), which became famous in the 1980s, states that firms should set their route according to the external environment- focused actors. Moreover, Porter defines the key concepts of management (cost, diversity, basic ability) by connecting them to the external environment. The schools of thought described by Mintzberg and colleagues (1998) and theoretical propositions reveal that the structure of the organization is sensitive to the variability of the environment (Morden, 2016). However, the context of strategy that defines the relationship between the environment and the organization is attributed to the time.

This notice should lead us back to the definition of strategic management and re- defining the concepts the theoretical approach. Long-term strategic management, continuing profitability, sustainability and competitive advantage are the defined concepts in strategic management theory. Economies of scale is another concept, which should be added to that list.

Another debate is related to the steps of the strategic management process. With a widespread acceptance, this process consists of analysis, selection, decision-making, implementation and supervision (Morden, 2016). This study provides a suggestion about a paradigm change on the basic concepts of the strategic management process. The first discussion is about time. Strategic management is a long-term concept. However, the definition of "long-term" is important. In the literature, long-term is defined as 5-years and over, while medium-term is 3 to 4 years. But, this definition should change regarding the changing structure of the markets, globalization, growth of companies (scale economy) in recently. Second discussion is about the validity of strategic management concept for small and medium scale enterprises (SMEs). Because of the structural characteristics of SMEs (organization structure, management approaches, future perspectives, life cycle etc.) and the problems aligned with strategic management, it may be difficult for a SME to adopt strategic management implementations. It will be explained why strategic management cannot be implemented into SMEs by defining their position in the market and their relationships with the large-scale enterprises. The third discussion of this study is about the stages of the strategic management. This study argues that the consciousness factor, which is frequently neglected in the literature or practice, should be the first stage of the strategic management. In the changing competitive conditions, strategic consciousness should take parts at the first stage of the strategic planning process.

PARADIGM IN STRATEGIC MANAGEMENT

The paradigm is known with Kuhn, however it is a concept used in the history of thought since ancient Greece literature such as Herodotus, Plato, and Aristotle. In his work Kuhn (2012) has shaped the paradigm with different contents, but according to him, paradigm is the forerunner of a certain time period of a thought-maker with evident experiences and evidence of these experiences according to him. Paradigm is the forerunner of thought that is prominent experiences in certain time and, that owns the evidence of these experiences. The paradigm also includes source of research and route of research, and answers to the questions by using models and examples, and teaches how to interpret the answer. Kuhn said that the paradigm keeps the scientist bound to the normal scientific tradition. In this context, it can be said that the paradigms are both the highest priority and more binding than scientific rules that that can be achieved consistently. But, paradigm is not theory, doctrine or ideology, it does not substitute them. However, on the basis of the paradigm, there are some true and false beliefs which are produced and

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reinforced by relations in environment. In essence, paradigm means a model that dominates a scientific environment for a certain period of time.

Kuhn said that the scientific research was constantly looking at new and unexpected appearances before pursuing innovation. Kuhn said that the scientific research was constantly encountering a new and unexpected phenomenon without searching after innovation. According to him, researching in the light of paradigm is also the most effective way of creating a paradigm change. With the paradigm change, it may mean destruction, abandonment, loss of faith for believers of model. During the emergence of new theories, there is a great change in the normal science when destruction is experienced in the existing paradigms. Apart from this, making an innovative and previously unknown definition, asserting new values, or a new approach of presentation-understanding-life style is also described as a paradigm (Johnson, 1988).

In this context, especially in the last 30 years, the definition of concept of management and organization by using culture, technology, innovation, 4.0, knowledge, philosophy is remarkable. There are many factors that gives direction to the management and organizational studies. These are;

- Changes in the global arena
- New political actors, Questioning of economic paradigms
- Scope of financial and economic crises
- Irrational consumer behavior
- Differentiation of social analysis through new or recurring concepts
- Communication networks and the concept of network become determinative in explaining human nature and social structure,
- The shift of health regimes and policies towards new phenomena,
- The existence of different competition concepts in a field expanding from agriculture to defense industry
- Civil initiatives
- The effort of social media to discover new meanings
- Other factors

New paradigm discussions are inevitable, if an inference is made over all the factors listed above. These discussions create a highly productive field, especially on the social sciences. For example, it is remarkable that a conceptual such as bioeconomics emerges as a new paradigm. Depending on the reconstruction of environment relation via new tools and methods through post-colonial networks, resources being discussed through a new paradigm is more popular in the literature. The use of the national company paradigm to evaluate companies' relationship to the environment is the result of that size of the company is bigger than the country or even continental economies. This situation points out a new paradigm change. Considering all these issues, this study aims to discuss a paradigm shift on strategic management.

As commonly known, where the strategy word / concept comes from is very controversial issue. According to some, root of strategy concept is based on Sun Tzu, another believes to be based on Ancient Greek General Stratigos, also according to some studies, it refers road/trace that means startum in the Latin word. Whatever it is, strategy is military origin and it covers the aims and the methods used. It is not too much time to meet the management and organization of the strategy. It is not very old that strategy is started to use in management and organization literature. Pioneers such as Ansoof, Andrews,

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Selznick, Chandler, and Steiner built link between strategy and management that is based on knowing the current situation, planning, preparing the budget and making inference. Afterwards, the concept of strategy showed itself in planned economic studies in accordance with sense of management in the public. This change can also be seen by examining history of strategy when is being used in the field of management since 1950's.

In fact, this approach that is a tool of planned economies emphasizes that the concept of plan will be short, medium and long term. In this context, strategic plans / planning concept is used for long term meanings. This situation is as a proposition that gives companies a vision, and it has become a guide for companies. In the 1970s, strategic planning concept took place in the management literature.

The future knowledge in relation to management and organizations is meaningful in relation to what your future will be. In other words, the strategy is not to be a future science but to use every kind of conceptual that related to how the organization will act in the future.

In the analysis of organizational environment, many titles listed below are the topic of discussion on strategic governance.

- Making environmental estimations
- Both how competition will direct future and how future competition will direct the management/ organization
- Reasons for use in business functions
- How to manage the changes

In this context, especially since the 90's, macro changes listed above and their results have been the determinants of the change. Events, such as the change in the quality of environmental elements, the measurement and comparison of businesses with global budgets, research and development activities undertake new roles in new competitive conditions, require a change of paradigm as well as causing to the emergence of many theories in a short period of 60 years. The obligation suggested can be discussed through the basic steps and process that define the conceptual framework.

Strategic management concept defines with sustainability, long-term future, competitive advantage and profitability above average. Strategic management process consists of the steps such as strategists, strategic analysis, strategic orientation, strategy formulation and strategic applications. Within this drawn framework, the following points draw attention;

- Long-term strategic management,
- The existence of strategic management understanding for each business
- The beginning of the choice of strategists, not the strategic consciousness.

In this study, it is suggested that the paradigm change should be these three points: First, the change of the long-term concept is emphasized. Mentality of limited long-term planning is obsolete. Some reasons of invalidity of the planning mentality;

- Change of company size
- The emergence of global businesses,
- Increasing complexity

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- Increasing in number of tools for future predictions
- Effective use of information, sharing and analysis

Secondly, we need to talk about consciousness. In many of the strategic management approaches, it seems that the main steps define the process by ignoring the strategic consciousness. However, regardless of the scale, strategic consciousness establishes the relationship between future and organization. Consciousness determines how to manage an integrated process for large businesses. For SMEs, the consciousness decides on the vision and how future development should be. Finally, it is necessary to discuss the strategic management relationship of SMEs. This last suggestion of a paradigm change is very clear; It is meaningless to establish a relationship between strategic management and SMEs. In other words, talking about strategic management for SMEs is not meaningful as conceptual or content.

Paradigm Change in Strategic Management: Removing Time Constraints or Flexible Times

The outlook for the future and the planning periods have been determined with a clear distinction with the popularity of strategic management in the 1970s. According to this traditional approach, the period of up to 1 year is stated as the short-term period. This period also is referred to as a financial period in many studies. This is the period in which organizations can conduct tactical activities and perform activities that do not have a strategic tendency. The medium-term period is considered as 1-5 years. Mintzberg (1998) declared the medium term plans as less than 5 years. He also stated that this period consists of short-term operational plans. According to traditional approach, 5-10 years refers as long term. As already mentioned, it is considered that 5-10 years are the counterpart of strategic planning related to strategic management.

The long term is the period in which predictions and long-term goals of enterprises are involved and strategic plans are being implemented. Mintzberg et al. (1998) stated that the period for long term planning is 5 years in their book "Strategy safari: a guided tour through the wilds of strategic management". Furthermore, in the same book, it is seen that the concept of time adopted by the strategy schools is similar with the traditional approach. Similar to Mintzberg, H. Igor Ansoff (1957) considered the future prospects as five-year periods and stated this period as the long term. Hofer and Schendel (1978: 65) also stated that the long term is 5 years and over. In many studies, the long term in the strategic management process is taken as 5 years and over. Some of these studies are Hamel and Prahalad (1996), Das, (1991), Ali and Shaw (1988), Eren et al. (2000), Glaister, and Falshaw (1999). Especially in studies conducted

Table 1. Transitions and differences between stages of strategic management thought evolution

1950's	1960	1965	1970	1980	1985	1990
-Planning -Visible Future -Non-Holistic View -Aim-Goal -Closed Organization	-Long Term Planning -Long Future -Time Horizon	-Planning -System Approach -Holistic View -Intra-Organizational Interaction	-Strategic planning -Determining Direction	-Strategic Management -Open Organization -Interacting with the environment -Feedback	-Strategic Scenarios -Alternative aspects, -Alternative routes,	-Strategic Opinion -Unpredicted future

Source: Güçlü, 2003

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before the year 2000, the strategic management process is based on traditional approach and the long-term is accepted 5 years and over. However, in the last 30 years, especially as results of the growth of companies sizes and changes in organizational structures, long term has exceeded 10 years and extends to 20 or 30 years depending on the scale of the company. there is a very important reason: Sustainability.

In a study by London Business School, publicly-traded companies are compared for sustainability between 1990 and 2010. The results showed that companies that invest in sustainability in the 20-year perspective are more valuable than those who do not. On the other hand, there is also an increase in operational activity. This situation contributes both to the increase in profitability and to the appreciation of the shares in the markets. In global markets "sustainability index" are established in stock markets in order to attract investors and these indices are used in the UK, Brazil, South Africa, China (Sustainability in companies, n.d.).

Considering that countries have developed strategies with longer and more flexible work for energy, industrial sectors, it is not surprising that companies' efficiency. On the other hand, consumer profile and the present and short-term future are more clear nowadays through behavioral economics. This situation makes more strong forecasting process as much as being complicated. Companies try to understand the consumer more accurately bu using short-term experimental marketing techniques or multiple analysis methods. While this meticulousness in operational activity facilitates the longer calculation of the management process, this makes audit / verification period (3 months, 6 months, etc.) more frequent. This situation is in accord with the Management Renaissance proposed by Hamel and Prahalad (1996).

On the other hand, although long-term seems to be a disadvantage in works toward different cultures, studies about cultural learning and cross-cultural systematic analysis facilitate the long-term execution of the process. Especially since Porter (1991) emphasized that the strategy should have a dynamic structure, businesses emphasize the concept of time while planning their industry dynamics, organizational change necessity and strategic preferences. It has been reflections of all the changes. Flexibility planning within strategic management, changing the nature of the long-term concept and making short-term control are reflections of all the changes. Flexibility of time concept and its relations with strategic management is included in recent work. Dibrell et al. (2014) focuses on the flexibility of planning within the strategic management process. Especially in accordance with the change of environmental conditions and the flexibility of long term perception which is considered as strategic planning is emphasized. this study showed that firm size, flexible planning, innovation and firm performance is significantly related on each other. In particular, the relationship between innovation and long-term flexibility is an important result. As a mentioned by Dibrell et al. (2014), Innovation isn't the result of a company's strategic planning process, but it is a response to the external environment through planning flexibility.

Albrechts (2004) reassessed the strategic management process. According to him, the strategic management process over time is a dynamic and creative process and changes must be made, so that the best possible decisions can be made at any point in the process. In this way, a long-term vision is gained. Albrechts (2004) also has made long term emphasis on his work without any time constraints for the future. When the recent studies in literature on strategic management literature are examined, it is seen that sharp expressions about the long term period are avoided. Instead of these expressions, flexibility-based approaches are used. Stonehouse and Pemberton (2002) stated that a structured planning period is clearly inappropriate at times of rapid and turbulent. According to them, it is necessary to set longer term targets for an institution to survive and progress. Despite the fact that the sample group is SME, it is seen that the planning for 10 years and above is preferred in terms of organizations. In Glaister and Falshaw' study (1999), it is seen that the number of enterprises making plan over 5 years is high ac-

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cording to the year of the study. Poister (2010) stated that performance evaluation for 10 years and over is an informative in terms of strategic management. Moreover, while talking about future predictions within strategic management, he has consistently emphasized the long term. But he did not limit this long term to any time constraint. Kalpande et al. (2010) didn't define the long term concept in their study while emphasizing the long term planning in terms of organizations. While emphasizing the long-term perspective of strategic management in his work, Özer (2015) didn't make a proposition in terms of time. Similarly, the concept of long term has been used in the future predictions without any limitation by Loewenstein et al. (2003).

Strategic Management Process: Strategic Consciousness

For organizations, strategic management is a systematic approach to strategic thinking. This approach is a process involving the steps associated with one. Another discussion in this chapter is the strategic consciousness that is not included in the strategic management process and is ignored in most strategy literature. Generally, the strategic management process is seen as a five-step process in the literature (see Figure 1). Internal and external environment analysis is performed as the first step to the strategic management process. The external environment analysis is sometimes described as "PEST" analysis (Morden, 2007). PEST refers "Political, Economic, Social and Technological" factors in the external environment. Another analysis that can be used in environmental analysis is SWOT analysis. SWOT analysis is an analysis used in strategic management to identify both the strengths and weaknesses of organization and to identify external opportunities and threats. Another stage is the strategic orientation phase.

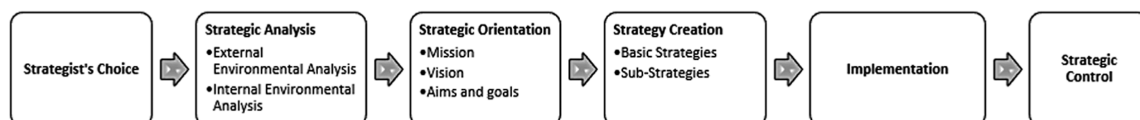
At this stage, the mission, vision, goals and targets are determined. After strategic orientation, strategy is created for organization. At this stage, the basic and sub-strategies are evaluated in line with the determined goals and targets and the best strategy choice is made for the organization. After the selection of the strategy, last stages are implementation and control phases. In this way, the strategic management process is completed.

This five-step process begins with the "Strategist's Choice" phase in some sources. Some sources include strategic management practices that involve different phases. Among these sources, there are some strategists such as Andrews, Mintzberg, Steiner, Morden, Nutt and Backoff.

Hofer and Schendel (1978), the strategy formulation process was stated as;

1. Identification of strategy
2. Environmental analysis
3. Source analysis
4. GAP Analysis
5. Strategic tools

Figure 1. Strategic management process



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6. Strategic evaluation
7. Strategic choice

Steiner (1969) has included the strategic planning process model in his book "Top Management Planning". The main steps of this model are;

1. Goal setting
2. External audit
3. Inner control
4. Strategy evaluation
5. Preparing strategy for implementation
6. Schedule all the process

Nutt and Backoff (1987) considered the process of strategic direction as a six-step process in their work. The main steps according to this process are;

1. Historical analysis,
2. Assessment of the current situation,
3. Discussion of strategic issues,
4. Strategic alternatives,
5. Feasibility assessment
6. Implementation

Kenneth Andrews (1971) pointed out that the main headings in the schematic view of economic strategies are as follows;

1. Determination of environmental conditions and trends
2. Features that provide Competitive Advantage
3. Opportunities and risks
4. Company resources
5. Thinking of all combinations
6. Making evaluation that will provide opportunity and resources harmony
7. Choice of strategy

Mintzberg (1990), "The Basic Design School Model", states that the main steps of the strategic management process are as follows;

1. External Evaluation
2. Internal Evaluation
3. Formation of Strategies
4. Evaluation and Selection
5. Implementation

Morden, (2007), considered the strategic management process as a four-stage process. These steps;

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1. Strategic analysis and planning,
2. Strategy creation and strategic decision making,
3. Strategic choice,
4. Implementation

Although strategic management process steps are handled at different stages in many sources, in general all processes have a same output/aim. This outcome/aim is to ensure that organizations are foreseeable and sustainable. Because strategic management is a process by which managers are able to recognize opportunities for environmental change and to recognize internal and external environmental factors (Thompson, 1993). In this respect, one of the paradigm change is about the strategic consciousness which is ignored in most strategy literature and not included in the strategic management process.

Although managerial consciousness is more effective in creating the strategy, the importance of managers' perceptions of strategic consciousness is rarely found in the literature or business life (Stubbart, 1989). It is aimed to express the deficiency of basic studies in the literature of strategic management (Andrews, 1971, Ansoff, 1965, Mintzberg, 1990, Schendel and Hofer, 1979).

Strategic consciousness means the mental ability of the firm, collecting and re-activating all mental functions (Halis et al., 2010). The level of strategic consciousness in terms of strategic management process refers to the ability of organizations to realize the environmental changes, to follow the strategies applied by the competitors, to be able to produce new strategies and ideas, and to provide sustainability and to have vision. The ability to have strategic thinking and consciousness is a critical to manage complexity and cope with rapid change in the environment (Halis et al., 2010).

The choice of strategists and the realization of the analysis is related to the existence of the " future intelligent" and "systematic inquiry" consciousness. In other words, everyone and especially CEOs, business owners, CFOs, even employees sometimes worry about themselves and companies for future. However, in contrast to these concerns, strategic consciousness systematically approaches the environment, the future of the environment, the future of the company's stakeholders, the future of its family, the future of its employees and the future of the company. Strategic consciousness question systematically their existence, analyze the data and use the minds of others, try to make sense of what are get from intuition and lastly compare the result with forecast. Beyond a feasibility viewpoint (Beck, 2014), it is known that how to live in a risk society and how the company should be managed as part of this community, and it is decided in this direction. In fact, managers who have strategic consciousness have the ability to better manage the use of resources and the steps of the future process. This is a personal situation and can be seen in the first step of the entrepreneur.

Strategic management process that inculdes what is the organization, what the mission's purpose and aims should be, taking decisions about how to measure and evaluate its performance, and and its implementation (Morden, 2007) starts with having "strategic consciousness". Therefore, with the proposed paradigm change, the strategic management process should start with strategic consciousness (see Figure 3). The studies that draw attention to the importance of strategic consciousness in the strategic management process have recently come to the forefront. Halis et al. (2010) emphasized the relationship between the concept of strategic consciousness and strategic planning success in their study. Tukay et al. (2012) investigated whether strategic planning and strategic consciousness had effects on strategic planning factors (such as the institutionalization of strategic planning, the presence of vision and mission statements and action plan, performance measurement and stakeholder analysis) or not. As a result of this study, strategic consciousness has shown that strategic planning is important for institutionalization. Boiral et

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Figure 2. Strategic management process with strategic consciousness

al. (2014) investigated how top executives can influence environmental leadership at various stages of consciousness development. As a result of this research, they found that the managers' consciousness situation affected the leadership. Stubbart (1989) investigates the link between cognitive status and strategic management in his study. The article examines the foundations of modern cognitive science, and some recent research related to strategic consciousness has been reviewed. Sotarauta (1999) emphasizes the need for strategic consciousness building in the strategic management process. He states that strategic consciousness is a very important prerequisite within the strategy process. Therefore, it is considered that the process of strategic management must be as in Figure 2 in terms of strategic management outputs. Both in terms of strategic management process and organizational and managerial activities, the studies that emphasize the importance of strategic consciousness are also in this direction.

Strategic Management: Evaluation in Terms of SMEs

Effective implementation of strategic management also varies according to many characteristics of organizations apart from strategic awareness in the process or long-term vision. Many factors, such as the size of the companies, the sector, organizational structure, managerial abilities, are related to the effectiveness of strategic management. Therefore, another topic discussed in this chapter is that strategic management is not applicable to SMEs. Before explaining paradigm change for SMEs, the definition and characteristics of SMEs should be mentioned. Thus, the reasons for the proposed paradigm change will be better understood.

Small and medium-sized enterprises (SMEs) are typically owned and controlled by an entrepreneur. There are many definitions related to SMEs. The concepts that these definitions often use related to qualitative and quantitative characteristics of SMEs. The criteria that are used at defining SMEs are (Özgener, 2003);

- **Qualitative Criteria:** Having a small share in the business line in which the business operates, the capital belongs to the owner of the enterprise, degree of specialization and division of labor, owners are worker in own enterprise, independent management (usually the owner of the enterprise is the director at the same time) and inability to apply modern management techniques.
- **Quantitative Criteria:** Number of personnel, capital, amount of production, total assets, machinery, market share, profit, amount of energy used, sales volume.

In SMEs, a significant part of the decision-making and executive bodies in the hierarchical structure consists of family members. Because of reasons such as globalization, information economy, changes in information and communication technologies, new market opportunities and complex business life, economic crises and growing business scale, the inadequacy of the knowledge and skills of the business

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Table 2. SWOT analysis results of SMEs

Strengths	Weaknesses
Flexibility Owner manager Low labor Low costs Simple structuring Cooperation with employees	Lack of quality consciousness. Lack of financial strength. Lack of correct business culture. The lack of educated workers. Lack of technology superiority Lack of proper management tendency. High score of key personnel. Missing planning. Lack of long-term strategic focus.
Opportunities	**Threats**
Expert market Support of government Raising the ceiling for SMEs. Government reserves of material items.	Financial tightness. Technological obsolescence. Ignoring the mechanic preparation Increase in the cost of information resources Political peace and instability.

Source: Kalpande et al., 2010

owner and family members makes it difficult to adapt to change (Özgener, 2003). Strategic management concept applied in SMEs also carries characteristics of SMEs that mentioned. Strategy creation and decision-making is in the hands of the entrepreneur and this process is carried out for its own purpose (Morden, 2007). Compared to large businesses, SMEs is a form of organization that has a local orientation, ownership and management function is conducted by entrepreneur. Therefore, the concept of strategic management in SMEs is informal character including all the personal qualities, experience, creativity, intuition of the entrepreneur in a dynamic and heterogeneous business environment (Todorov, 2014).

Kalpande et al. (2010), SWOT analysis results for SMEs were also influential in determining the characteristics of SMEs (see Table 2).

When strategic management is considered in terms of the process, vision and mission statements of businesses are seen as theimportant tools of strategic management. However, from the perspective of SMEs, very few SMEs have adopted vision or mission statements as strongly as larger organizations (Frantz et al., 2017).

When the characteristics related to SMEs are examined, in many studies it is stated what SMEs should do for future and how to do. Despite of these studies, there is no provision for the strategic management steps listed above and for the definition of strategic management. this is confusion between reality and fiction or probability and existing. In other words, it is only possible to talk about operational activity for SMEs, not strategic management. There is only a strategic consciousness for owner-manager, but this is a personal skill as we have just mentioned. In addition to this, SMEs can implement the strategies used by industry leaders in the supply chain, regional development and policies, the partnerships or clusters they have in the sectoral cooperation, sectoral / regional projections in the context of public planning. Although there is an objection to medium-sized businesses. The transition from small businesses to medium-sized businesses is a growth and the owner-manager is still pursuing operational efficiency in practice. Strategic management process is also too much costly. So it is another reason that the SMEs are far away from it.

In the studies about SMEs, it is shown that SMEs are not in a strategic planning or management process. Pournasir (2013) has examined the key success factors of strategic management practice in SMEs

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in Iran. He points that the most important issues leading to failure in strategic management practice are strategic planning and time constraints. It has been shown that there is no strategic planning in the majority of the firms. Charles et al. (2015) found that firms generally preferred reactive and extraordinary strategies developed depending on the situation in contrast to a generally structured strategy of firms. Frantz and dig. (2017) pointed that the lack of planning and the lack of long-term strategic focus is weaknesses according to SWOT analysis results of SMEs. In the study, it is mentioned the benefits of strategic management for SMEs and this is a recommendation. However, it is not considered applicability in terms of organizational process and structure. Stonehouse and Pemberton (2002) have studied strategic planning in SMEs. In this study, it is seen that the planning periods of the enterprises generally have a term of 3 years or less. This shows the validity of medium and short-term planning rather than a strategic approach for SMEs. Operational and tactical activities are suitable for SMEs and efficiency are provided through these activities.

Pushpakumari and Watanabe (2010) have shown that the performance of SMEs depends on the strategy orientation adopted by owner-managers.

Kraus (2007) points out the main objections to the use of strategic processes in SMEs according to entrepreneur. These are;

1. Strategic measures and techniques restrict flexibility and the ability for improvisation;
2. It makes more sense to use the limited time resources for operational or sales activities or research and development (R&D) than for strategy-formulation processes
3. Strategic management is too bureaucratic.

According to Ates and Bititci (2009), the dynamics of the SMEs strategy have both extraordinary and planned dimensions. It is stated that managers often carry out the strategy process informally and have limited practice. This suggests that SMEs have a dynamic and interventionist management approach, and decision-making speed are extremely high (Karlsson and Olsson, 1998). Kaya and Aytekin (2003) point out that SMEs operate in a narrower market with a limited number of products, using simpler production processes and methods, and because of the low number of products and the simplicity of the production methods, they obliged to adhere certain targets. Özgener (2003) point out that considering the time horizon in planning for SMEs, the ratio of short-term planning (less than 1 year or more seasonal) is higher than long-term planning.

SOLUTIONS AND RECOMMENDATIONS

It is identified that long-term perception has changed in strategic management. While control periods are getting shorter, Long-term has exceeded 10 years and extends to 20 or 30 years depending on the scale of the company there is a very important reason: Sustainability. The importance of strategic consciousness in the strategic management process and its obligatory are emphasized. Finally, it was emphasized that it is not appropriate to comply with strategic management in SMEs. While considering these aspects, it is strongly recommended that these issues should be given importance both in strategic management literature and in enterprises.

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FUTURE RESEARCH DIRECTIONS

This study aims to discuss and analyze three fundamental paradigm changes related to strategic management. For this purpose, analysis was made on three topics and this discussion was supported by studies in the literature. By focusing on important topic for strategic management, it is believed that this study makes a contribution to the literature. It should be noted that for the paradigm change regarding strategic management is only the first steps. Therefore, it is also thought that new studies on strategic management, which has a content to be discussed in terms of the many principles and practices, will also be beneficial. In addition to this situation, another study that analyzes other aspects about strategic management can also give appropriate results.

CONCLUSION

In today's business world, strategic management is a widespread management approach to compete and sustain their life. In essence, it gives the organizations vision and mission and instill the consciousness of being in harmony with unexpected future and environmental conditions. In the 1950s, strategic management was thought as a means of planning, then it has gained a strategic importance in the 1980s, and now it has become the lifestyle of organizations. Many developments and changes in the organizational environment have changed the strategic management approach over time. Especially the transition from planning and long term vision to strategic management approach has been an important step in the evolution of strategic management. In today's competitive conditions, it is necessary to make changes in the traditional understanding of management approaches. there are many reasons for this change;

- An introverted structure of organizations
- Limitation of interaction area
- Transition from production-oriented approaches to market-oriented approaches
- Contrary to organizational growth, organizational development provides superiority in terms of competition
- Dependence of environment
- Increasing the determinants of networking on organizational structure and processes

In this context, it is inevitable to go through a number of changes over the mainstream paradigms. It is necessary to reinterpret the concept of strategy and to reconsider strategic management. In this study, the paradigm change proposed is an objection to the traditional approaches. The proposed paradigm change is related to the three aspects of strategic management. The first of objections is that long-term is relationship between vision and future and the future vision of strategic management must be in this direction. Accordingly, it is not possible to limit the future as suggested by traditional approaches. Strategic management is not a plan for the future. As the environment of the organization changes continuously, the plans can not be made once and they are not transformed into constant patterns (Hatiboğlu, 1986). Therefore, there is no fixed constraint. A flexible planning structure should be. The period is kept long and it is tried to give more control to attain the goals and targets. Instead of meeting the future in

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strategic management, having own future and shaping the future in accordance with foreseen become whole organization targets. The long-term perception in the strategic management process has changed its meaning along with changes in organizational life. Nowadays, time limitations like 10 years or 5 years have been abandoned. The main reason is differentiation of organizations in terms of structure and process. Especially, when the results of the scientific studies in 2000s are examined, it is seen that the concept of long term in strategic management changes.

The second paradigm change is related to the steps of the strategic management process. The process steps taken in traditional approachs consists of 5 stages including selection of the strategist, strategic analysis (external environment analysis, internal environment analysis), strategic direction (mission, vision, goals and objectives), strategy formation (basic strategies, sub-strategies), implementation of the strategy, strategic control. These stages are generally accepted in literature, even if some studies state differently. Suggested change is involvement of strategic consciousness in strategic management process. In the strategic and strategic management process, strategic consciousness has not only a decisive role at the beginning but also in the process. This consciousness is not anxiety-based or not aims positioning for the future. Strategic consciousness begins with awareness. It contains a systematic index of proposals and eventually it redefines the meaning of sustainability for the future, taking into account the environment. The importance of strategic consciousness in the strategic management process is is emphasized.in some studies.

The third paradigm change is about the needlessness of the strategic management for SMEs. SMEs need to be understood through operational efficiency rather than strategy. Structures of SMEs are not eligible for the strategic management. SMEs are organizations that are governed by their owners, highly personalized, mostly in local activities and able to finance their growth with internal source. SMEs do not have sufficient management and efficiency capacity for strategic management process. They are more focused on daily operational activities. Some features such as having a visionary owner, being flexible, future anxiety and ambitions of growth don't show suitability for strategic management. They can only be an effective part of the strategy of the network, region and sector they are involved in. The public policies of network and the environment determine not only the growth power but also the life process. This objection does not mean that SMEs will not learn strategic management in the future. Also this objection doesn't ignore SMEs. On the contrary, this objection suggests that they will learn strategic management thanks to common mind, strategic alliances and quality development programs. Otherwise, there will be no sense of strategic management in SMEs for the future.

Finally, it should be noted that for the paradigm change regarding strategic management is only the first steps. For later, strategic management has a content to be discussed in terms of the many principles and practices.

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KEY TERMS AND DEFINITIONS

Strategic Consciousness: It means the mental ability of the firm, collecting and re-activating all mental functions.

Strategic Management: It is the continuous planning, monitoring, analysis, and assessment of all that is necessary for an organization to meet its goals and objectives.

Strategic Management in SMEs: It refers to activities related to strategic management in small and medium-sized enterprises (SMEs).

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Chapter 11

Facing Disruptive Innovation:
Strategic and Managerial Challenges

Davide Tammam
LUISS Guido Carli University, Italy

Federica Brunetta
LUISS Guido Carli University, Italy

Francesca Vicentini
Link Campus University, Italy

Elvira Anna Graziano
Link Campus University, Italy

ABSTRACT

Technological change is creating strategic and managerial challenges. This holds true in the case of disruptive innovations, which are reshaping industry boundaries, exposing organizations to new competitive logics and threats. Companies face the need of new strategies and innovative thinking capabilities. This chapter provides a systematic literature review on the role of disruptions by identifying the changes they have brought in the markets and the new challenges for managers, especially within the domain of strategic management, since disruptive innovations may modify strategic and innovative thinking. The final analysis has been conducted on 19 journal articles published between 1995 and 2018. The results show the strong interplay existing between strategy and innovation management, but they also highlight the relationship between innovative thinking, learning, human capital, and capabilities' acquisition. Furthermore, they encourage further research in the light of the multiple trajectories offered by innovation and disruptions for diverse companies and industries.

INTRODUCTION

Literature acknowledges the effect of technological change on firm strategic management, since it impacts on capabilities and strategic and innovative thinking. By altering the intensity of competition, the level of environmental uncertainty, structural conditions such as barriers to entry and mobility, economies

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of scale and scope, demand conditions, and customer preferences, technological change is also strongly affecting strategies.

Among the trajectories of technological change, this work focuses on disruption (Christensen, 1997; Porter and Heppleman, 2014), which, by creating new-markets and impacting on the low-end (Bower and Christensen, 1995; Lambert, 2014) is re-shaping the boundaries of several industries and altering the nature of business while exposing organizations to new competitive logics and threats, affecting strategic and innovation management. Thus, this scenario projects the need of new business processes, the definition of new business models, a different innovative thinking and novel managerial challenges (Birkinshaw and Ansari, 2015).

The change driven by disruptions is also transforming the way organizations learn, communicate, and work in a significant way, modifying consolidated ways of organizing (Endsley, 2000) as adaptive responses; managers are thus challenged to plan, strategize and think differently and need to work on individual and organizational capabilities to be able to cope with innovative business models, innovative thinking, tracking technological evolution and focusing on consumer demands (Teece and Linden, 2017).

Additionally, disruption can yield a different impact depending on the type of market in which it happens and based on the peculiarities of that type of market. Indeed, for a disruption to occur the presence of a technological core is extremely important, since the innovation will develop in quality to gradually compete with higher quality products (Christensen, Raynor, & McDonald, 2015).

So far, little attention has been devoted to the impacts of innovation and disruption on strategy and innovative thinking in the light of specific market characteristics, despite literature has widely focused on how managers must manage disruption to determine organizational adaptation and innovation adoption. Indeed, disruption may have different strategic impacts (Christensen and Raynor, 2003), depending on the type of market in which it happens and based on its peculiarities. Technology has, indeed, a crucial role inside the theory of disruptive innovation, and so it is necessary to do a differentiation of markets based on technology. Markets can be differentiated based on the trajectory of their technological improvement (i.e. the slope): the steeper it is the trajectory that characterizes the market, the more it is plausible that a disruptive innovation may be introduced into the market and will eventually disrupt the entire business, requiring firms to change, adopt or implement different strategic and innovation management solutions. If instead the trajectory is flat, it means that the role of technology in the market is ancillary, so a disruption is less likely to happen. Another important differentiation that can be done to highlight the differences in the speed of disruption across markets is implementing a separation made on a segment basis, which means that a business can decide to sell its products to other businesses or to customers and depending on the case, the buying process will be different. Finally, further differentiation can be based on the industry life cycle, thanks to which it is possible to understand in which stage it is more probable that a disruption will happen.

This work proposes to sum up former research in innovation and disruption in relation to industry characteristics and managerial competences. Authors aim to look at the existing literature to better understand the impact of disruption on strategic and innovation management, as well as innovative thinking. The chapter proceeds as follows: a brief introduction on disruption is first presented, summarizing the main concepts. Then, authors present the result of a literature review (Thorpe at al., 2005) performed searching the Web of Science database for academic articles containing the terms ‘Disrupt*’, ‘Industr*’, and ‘Competenc*, to identify scholarly contributions that have specifically focused on the relationship between disruption, industry characteristics and managerial competences.

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NEW-MARKET DISRUPTION AND LOW-END DISRUPTION

Throughout the history of all the technological changes that have been witnessed, in the last few years the world has been hugely enriched by innovations that are more and more meant to challenge the status quo. What is happening nowadays is that innovations are outdating other innovations at a faster pace either by offering an improved version of the product or by revolutionizing the relationship and the interaction between costumers and firms. However, innovations can take several forms and there are specific characteristics which must be met for an innovation to be considered disruptive. When the concept of disruption was firstly introduced, it did not have all the meanings that it has nowadays and that is mainly because of how the concept has evolved in our society. As it was first introduced by Christensen and Bower (1995) the concept of disruptive innovation was differentiated from that of a sustaining innovation. The main difference between the two is in who enact it and in which tiers it takes place (Christensen, 2017). Sustaining innovations usually take place in the top tiers of the market and are made by incumbents. Their raison d'être is to stay relevant inside the market, facing competition in a better way, meeting the growing demand for higher quality products and being able to charge even higher prices in the higher tiers. On the other hand, disruptive innovations usually take place in the low tiers of the market and are made by entrants. This kind of innovation can target either a previously non-existent segment, creating a whole new market or it can target costumers at the bottom of the segment, progressively stealing them from the incumbent's market share.

Nowadays the disruption concept has been enriched with many more meanings and it has become a broader concept. Disruption can take disparate forms, which can be usually lead back two types: new-market disruption and low-end disruption.

New-market disruption (Christensen and Raynor, 2003) is defined as an innovation that targets non-consumers, creating a whole new market; consequently, one of the prerequisites of such a disruption is that the innovation is brought to a market, which is currently unserved by the incumbent. At this moment, the new entrant can be hard to spot on, since it does not target the incumbent's customers, but non-consumers of the incumbent's product. Generally, incumbents are aware of the new entrant behavior, even though it is not dealing directly with them, but it can be neglected for three main reasons. First, the incumbent may have seen many new entrants following the same or a similar path and failing. Second, the incumbent has already run tests and simulation on what the new entrant is trying to do, without finding a profitable way to achieve it. Third, the incumbent had not believed that the new entrant would have affected its market share, because they serve different segments with different products (at a quality level). While the first two give a hint on the importance of adopting an alternative business model to disrupt a business, the last one tells us something more of disruption dimensions, even if it is effectively a case of poor management and scarce predictive capacity. As a matter of fact, it can create a parallel market, which has an impact on the existing one, without competing directly with it; or alternatively, at the beginning, it can cover unanswered needs, mainly targeting non-consumption. The main issue which may affect it, it is represented by the non-consumption. Not only it may not be easy to find out, because at the beginning the incumbent is not losing any customers, but also it can be difficult to restrain the growth of the new entrant. For instance, ZipCar (see Bartman, 2015, for a detailed analysis), which is a car sharing company, founded in 2000, which had the objective to further another possible option to car ownership. It did not directly compete with major car manufacturing businesses in the US, but eventually caused them to create their own car sharing businesses to compete with ZipCar: car manufacturing

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companies (such as Hertz) have eventually become the new entrants in the car sharing business, achieving marginal results (Bartman, 2015).

Low-end disruptions (Lambert, 2014; Christensen and Raynor, 2003) are placed in the low tier of the market offering products which are characterized by a lower quality compared to incumbents' products. When the new entrant starts to sell its products in the market it can target either overserved segments of the market or non-consumers. In the case of an overserved market segment, the disruptor enters the market addressing customers with a product comparable or slightly worse in terms of quality, gaining market share thanks to a business model placed on lower costs, which usually implies lower prices than the other competitors inside the market (Lambert, 2014; Christensen and Raynor, 2003; Christensen et al. 2015). Alternatively, if incumbents have left uncovered some customers' needs, the new entrant will instead target non-consumption. This usually happens when the incumbent keeps improving its product or service, through a sustaining innovation strategy, gradually. In this case, the new entrant will target all the customers who are unable to buy the already existing products produced by incumbents because of their premium price, and it will gain market share offering its product at a lower price; this shows that price is relevant in both cases, and it is even more important when targeting non-consumption. This is generally the first step for a low-end disruption to take place and it may later evolve with the disruptor either consistently reducing the incumbent market share or even taking it out of the market if it does not take any effective countermeasure to oppose the new entrant. At the beginning, the new entrant is positioned in the lower ranges of the market, competing with other companies offering a similar product in terms of quality, but inferior if compared to companies' products in the higher segments. This means that it is characterized by a cheaper pricing, an inferior quality and usually by less features, but through sustaining innovations and further investments, it can improve and finally reach the level of the other competitors, maintaining its low-price business model. Once the disruptor reaches this point, its products are comparable to the incumbents' in terms of quality, but they are characterized by a lower price (Lambert, 2014; Christensen and Raynor, 2003; Christensen et al. 2015).

Following Cromer, Dibrell, and Craig (2011), an additional clarification can be made, related to the fact that, although the Disruptive-Sustaining and Radical-Incremental dichotomies do seem similar, they have differences in their assumptions. In fact, while the previous is mainly based on market competition, the latter is based on the amplitude of the innovation (Cromer, Dibrell and Craig, 2011). Incremental innovation and sustaining innovation theoretically are similar, because in both cases the company is innovating an already existing product adding up features or making minor improvements to it so that it remains competitive within the market. Comparing Radical and disruptive innovations, on the other hand, requires differentiating low-end disruption from new-market disruption (low-end is hardly comparable with radical innovation because it is not a new product, but rather another version of an existing product) (Cromer, Dibrell and Craig, 2011).

Both new-market disruption and low-end disruption must have some characteristics, which are, indeed, always present in every form of disruptable market (Lambert, 2014). The first one it is a condition necessary for the market to develop a disruption and it is connected to the technology. This means basically that the product developed and distributed by the companies inside the market must have a technological core: the rationale is that at the beginning the product that is distributed to the customers is always inferior in terms of quality compared to that of the incumbent (Christensen, Raynor, & McDonald, 2015), but later it is possible that the company will improve the process and the overall technology necessary for the product and its development. The improvement of the product from a technological standpoint is what expresses the possibility for the company to effectively disrupt the incumbent, being

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enabled by the progress of the product in terms of technology. The second feature, which is particularly interesting, mostly for the low-end disruption type, is that companies are always driven towards the top tiers of the market due to the greater profitability and the higher margins obtainable upmarket from high-end customers (Christensen, 1997). Through sustaining innovation companies move their products upmarket, earning a more substantial profit than in the lower end due to their ability to charge higher prices: moving back to the low-end of the market or in a new one it's unattractive for the incumbent because it would imply much lower profits and an elevated risk of cannibalizing its own products. This is called "asymmetric motivation" (Christensen, 2003). Specifically, it consists in the incumbent striving for moving up-market and considering competing down-market with the disruptor a groundless decision. Both these decisions are profit-based and are the core of the innovator's dilemma: in fact, it is the decision not to hinder the new entrant by competing with it that may allow the disruption to happen. Finally, the third characteristics is that at some point, companies will overshoot customers' needs by providing them with a product which has a higher performance capacity, more than customers can appreciate or use. This varies from customer to customer and depends on their behavior utilizing the product: there are users that utilize the product in a more professional way, appreciating every function that the company decide to add to the product, while there are other customers that utilize the product more for its basic functionalities. The overshooting line would be an average of these two extremities and once the company crosses it, disruption is enabled, because disruptor can offer a product, inferior in terms of quality and functionalities, which nonetheless performs that basic function in a decent way (Christensen, 2003).

Apart from the concepts, there are additional approaches which give a more complete perspective on the disruption theory. One of the most interesting is digital disruption theory (McQuivey, 2011; 2013) revolving around the digital world and the possibilities that have been made achievable thanks to the availability of free or nearly free digital tools and the availability of digital platforms which have extremely simplified the process both in terms of knowledges and in terms of costs. More in particular, the strengths of the digital world depend on three key items: (i) free or nearly free digital tools, which can be easily utilized to rapidly build new products and services; (ii) the availability of digital platforms, that have become increasingly important not only to deliver digital products (e.g. applications, music, movies), but also to sell physical products and for marketing purposes; (iii) digital consumption, which is embedded in most countries' society, thanks to the burgeoning of digital platforms and digital products, which have enabled the increase in digital utilization.

Another interesting theory is the one that defines as disruptive some type of attacks coming from above. The labels given to this type of attacks vary from author to author (Sood and Tellis, 2011), but in this paragraph those attacks will be addressed as high-end disruptions for the sake of simplicity. The theory of high-end disruption is meant to describe those attacks that provoke the same kind of non-reaction of the incumbent and has the objective to identify why incumbents get systematically beaten by those companies that at the beginning did not pose a threat to them. As a matter of fact, both new-market disruptions and low-end disruptions do not provoke a strong reaction towards the disruptor, because the incumbent at the beginning will not try to protect the least profitable segment of its market, but it will rather leave it to the disruptor, in favor of going for the top of its market, towards the most profitable segments in it. Instead, a high-end disruption will provoke a very strong reaction toward the disruptor, because it concretizes as an attack from above, rather than below. The incumbent, seeing that its most profitable segments are at risk, will defend with determination its market share, and given the fact that

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in this case the threat is tangible and more immediate, its reaction towards this attack will be much more energetic.

Understanding how companies should behave when facing or managing a disruptive innovation is still an open question. This relevance derives mainly from the peculiar characteristics of disruptive innovations, that imply a different behavior on both sides; on the one hand, the management of a disruptive innovation, which from its very beginning is different in many aspects from other types of innovation, so disruptors must adopt a diverse conduct and strategy to disrupt the market with their innovations. On the other hand, the other companies inside the market, which must face the disruptor company, will have to defend their position adopting a strategy that is different from the usual defense adopted in case of comparable companies.

Many factors may impact on competitive and strategic reactions. First, the presence of a new-market disruption or low-end disruption: while a new-market disruption will address unserved customers, a low-end disruption will target the overserved and least profitable customers. Second, the "rate of improvement that customers can utilize or absorb" (Christensen and Raynor, 2003), that is the basis and the main reason why disruption is enabled. The incumbents keep improving their products, finally reaching a point at which they overshoot customers' needs. Finally, the trajectory of technological improvement, which varies depending on the industry and on the market (Christensen and Raynor, 2003). This trajectory is almost always steeper than the performance utilizable by the customers, meaning that with the passing of time the performance that customers can absorb will be eventually outstripped.

Given this synthetic review of the literature, this work progressed further by performing a more detailed and systematic literature review, aimed at understanding more closely how scholars have analyzed the topics of disruption of competencies within specific industries from either the point of view of incumbents or new entrants.

RESEARCH METHOD

Starting from existing literature, authors adopted a systematic literature review (Tranfield, Denyer and Smart, 2003; Thorpe, Holt, Macpherson and Pittaway, 2005; Pittaway, Robertson, Munir, Denyer, and Neely, 2004) to better understand the existing work on these topics and identify potential avenues for research.

The systematic literature review is an efficient and high-quality approach for identifying and evaluating literature (Mulrow, 1994). It adopts a replicable, scientific and transparent process and, thus, reduces biases through extensive literature research and by indicating all the reviewer's decisions, procedures and conclusions, making it different from traditional narrative reviews (Tranfield, 2003). The review process generally consists of three parts: data collection, data analysis and synthesis (Crossan and Apaydin, 2010), divided into the five steps described in Figure 1 (Thorpe et al., 2005).

The systematic research was performed on the electronic database Web of Science and the overview is presented in Table 1.

Then, studies were filtered by exclusion criteria and subsequently by title and abstract analysis. Exclusion criteria were related to: 1) Records were not journal articles. The review was limited to peer-reviewed journal articles, disregarding working papers, editorials, research notes and commentaries, interviews, dissertation abstracts, books, book chapters and conference papers (Keupp et al., 2012); 2)

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Figure 1. Five steps to implement a systematic review method
Source: Thorpe et al., 2005

Table 1. Overview of the systematic literature review results

Database searched	Web of Science
Keywords used in search query	3
Documents retrieved	87
Studies after being filtered by exclusion criteria	33
Studies after being filtered by quality and relevance analysis of abstracts	19

Authors have initially defined the search string, which included the three terms 'Disrupt*', 'Industr*', and 'Competenc*. This work looked for academic articles containing all terms in the field "topic", with no specific timespan.

Records were not published in English; 3) The research is specifically focused on the areas of business and management (Cardinal, Kreutzer and Miller, 2017), thus all other categories were excluded from the analysis. The final Specific Boolean Phrase resulted in: TS=Disrupt* AND Industr* AND Competenc* AND LANGUAGE: English AND DOCUMENT TYPES: Article Refined by: WEB OF SCIENCE CATEGORIES: MANAGEMENT OR BUSINESS. Timespan: All years. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI

Finally, an additional selection was based on quality and relevance of the articles, leading to the final analysis of 19 journal articles, published between 1995 and 2018, listed in Table 2:

SOLUTIONS AND RECCOMMENDATIONS

The main objective of this review was to deepen the understanding of how technological disruptions impact on organizations and how they can take advantage acquire or transform skills, competencies and resources and to foster communication and collaboration, leveraging technology while countering its potential downsides. 19 studies were analyzed, which are summarized in Table 3 for the sake of clarity. These studies address one or multiple aspects of these issues. While most articles focus on disruption and technological discontinuities, authors found that 10 of them specifically analyzed the interplay between strategy and innovation management, 3 deepen and highlight the importance of technology road mapping, 4 specifically target organizational issues such as learning, human expertise, and competence acquisition.

Although the first paper relating to this theme was published in 1995, the number of publications on the subject began to increase substantially in 2002 and thus this result encouraged and justified the choice of making a Systematic Literature Review (Thorpe et al., 2005).

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Table 2. Selected articles

Reference	Keywords
Christensen, C. M., & Rosenbloom, R. S. (1995). Explaining the attacker's advantage: Technological paradigms, organizational dynamics, and the value network. *Research policy*, *24*(2), 233-257.	Technological paradigms, organizational dynamics, value network
Ehrnberg, E. (1995). On the definition and measurement of technological discontinuities. *Technovation*, *15*(7), 437-452.	Technological discontinuities, disruption, Industry
D'Aveni, R. A. (1999). Strategic supremacy through disruption and dominance. *MIT Sloan Management Review*, *40*(3), 127.	Strategy, disruptions, hypercompetition
Markides, C. C. (1999). A dynamic view of strategy. *Sloan Management Review*, *40*(3), 55-63.	Strategy, innovation
D'Aveni, R. (2002). The Empire strikes back. Counterrevolutionary strategies for industry leaders. *Harvard Business Review*, *80*(11), 66-74.	Strategy, disruption
Walsh, S. T. (2004). Roadmapping a disruptive technology: A case study: The emerging microsystems and top-down nanosystems industry. *Technological Forecasting and Social Change*, *71*(1-2), 161-185.	Discontinuous innovation; business; science; competence; strategy; firm
Walsh, S. T., Boylan, R. L., McDermott, C., & Paulson, A. (2005). The semiconductor silicon industry roadmap: epochs driven by the dynamics between disruptive technologies and core competencies. *Technological Forecasting and Social Change*, *72*(2), 213-236.	Discontinuous innovation; product development; capabilities
Sainio, L. M., & Puumalainen, K. (2007). Evaluating technology disruptiveness in a strategic corporate context: A case study. *Technological Forecasting and Social Change*, *74*(8), 1315-1333.	Innovation; advantage; paradigms; knowledge; products
Smith, R., & Sharif, N. (2007). Understanding and acquiring technology assets for global competition. *Technovation*, *27*(11), 643-649.	Capabilities
Lawlor, J., & Kavanagh, D. (2009). The relationship between new technologies and strategic activities. *Technology Analysis & Strategic Management*, *21*(5), 587-598.	Disruptive technologies; product development; core competence; management; industry; view
Schmidt, R. S. (2009). NASA pressure-relieving foam technology is keeping the leading innerspring mattress firms awake at night. *Technovation*, *29*(3), 181-191.	Innovation; industry
van Moorsel, H., He, Z. L., Oltmans, E., & Huibers, T. (2012). Incumbent heterogeneity in creative destruction: a study of three Dutch newspaper organisations. *Technology analysis & strategic management*, *24*(10), 1051-1070.	Technological discontinuities; path dependence; innovation; capabilities; industry; firms; rationality; competence; management; inertia
Bergek, A., Berggren, C., Magnusson, T., & Hobday, M. (2013). Technological discontinuities and the challenge for incumbent firms: Destruction, disruption or creative accumulation?. *Research Policy*, *42*(6-7), 1210-1224.	Product development; Schumpeterian patterns; innovation; capabilities; industry; dynamics; entry; persistence; integration; competition
Carvalho, M., Fleury, A., & Lopes, A. P. (2013). An overview of the literature on technology roadmapping (TRM): Contributions and trends. *Technological Forecasting and Social Change*, *80*(7), 1418-1437.	R&D; intellectual structure; co-citation analysis; disruptive technology; integrates business; product development; practical approach; management; information; innovation
Linton, J., & Walsh, S. (2013). The effect of technology on learning during the acquisition and development of competencies in technology-intensive small firms. *International Journal of Entrepreneurial Behavior & Research*, *19*(2), 165-186.	Learning, Technology, Semiconductor silicon Industry
Bertels, H. M., Koen, P. A., & Elsum, I. (2015). Business models outside the core: Lessons learned from success and failure. *Research-Technology Management*, *58*(2), 20-29.	Innovation; inertia; firms; technology; industry
Ho, J. C., & Lee, C. S. (2015). A typology of technological change: Technological paradigm theory with validation and generalization from case studies. *Technological Forecasting and Social Change*, *97*, 128-139.	Sectoral patterns; technical change; industry structure; innovation; regimes; trajectories; firm; strategy; media; advantage
Berglund, H., & Sandström, C. (2017). A new perspective on the innovator's dilemma-exploring the role of entrepreneurial incentives. *International Journal of Technology Management*, *75*(1-4), 142-156.	Technology; capabilities; industry; markets; lens
Das, P., Verburg, R., Verbraeck, A., & Bonebakker, L. (2018). Barriers to innovation within large financial services firms: An in-depth study into disruptive and radical innovation projects at a bank. *European Journal of Innovation Management*, *21*(1), 96-112.	Product innovation; market; organizations; manufacturers; performance; governance; challenges; startups; adoption; impact

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FUTURE RESEARCH DIRECTIONS

Most of the reviewed studies apply conceptual or qualitative research methods, possibly indicating that scholars are still in an exploratory phase of research (Carvalho, Fleury and Lopes, 2013). Thus, authors have found diversity in the findings and other aspects possible affecting the results (company, country, other influential settings), and this highlights the need for further research on the topic. Accordingly, what remains completely underestimated is the timing through which disruptions may affect a new market. When Kodak or Xerox realized that the digital and innovation it introduced had completely changed the marketplace where they were placed? Did they intervene before?

Table 3. Summary of the analysis

Year	Authors	Title	Key findings	Journal
1995	Christensen, CM; Rosenbloom, RS	Explaining the attackers advantage - technological paradigms, organizational dynamics, and the value network	The authors aim to understand when entrants might have an advantage over an industry's incumbent firms in developing or adopting new technologies. Proposes that the setting in which firms compete (their "value network") is a relevant factor influencing whether incumbent or entrant firms will innovate with success. Authors find that: incumbents tend to be leaders in the development and adoption of new technologies addressing the needs of the customers embedded within their "value network". On the other hand, entrants dominate when the needs arise in different value networks and these disruptive innovations, changing existing trajectories of technological progress, represent the main advantage of the attackers, given the strong rate of technological improvement	Research policy
1995	Ehrnberg, E	On the definition and measurement of technological discontinuities	Author performs a critical review of literature on discontinuities, focusing on the disruptive effects on an industry.	Technovation
1999	D'Aveni, RA	Strategic supremacy through disruption and dominance	Author analyses the relationship between disruptions and strategy, building on insights from hypercompetitive markets and suggesting that turbulence defines diverse types of competitive environments in which different disruption patterns (with distinct characteristics of competence-destroy or enhancement) and frequency. Each of these potential competitive environments, characterized by either equilibrium, fluctuating equilibrium, punctuated equilibrium, or disequilibrium, require organizations to implement different strategies, needed to achieve an advantage by either incumbents or challengers.	Sloan management review
1999	Markides, CC	A dynamic view of strategy	The author focuses on describing the entrance of strategic innovators into established markets. These organizations proactively establish strategic positions to conquer market share or create new markets. Strategic innovation acts as a disruptive force, thus author suggest that firm shall: (i) monitor the market's strategic and financial health; (ii) prepare to welcome change, although disruptive; (iii) develop experimentation processes; (iv) focus on the development of the required competencies and skills; (v) manage transition.	Sloan management review
2002	D'Aveni, R	The empire strikes back - Counterrevolutionary strategies for industry leaders	Author focuses on the strategic responses for incumbents facing a disruption, presenting the case of how a market leader responded to the craft-beer revolution.	Harvard business review
2004	Walsh, ST	Roadmapping a disruptive technology: A case study - The emerging microsystems and top-down nanosystems industry	Author aims to analyze the issue of technological roadmapping of industrial disruptive technology, provided its importance the process of rapid technology commercialization. Author focuses on the Industrial Microsystems and Top-Down Nanosystems Roadmap (UMTDNR), to lay grounds of a definition of a model for a commercial disruptive technology roadmapping.	Technological forecasting and social change
2005	Walsh, ST; Boylan, RL; McDermott, C; Paulson, A	The semiconductor silicon industry roadmap: Epochs driven by the dynamics between disruptive technologies and core competencies	The purpose of the authors is providing a better understanding of the process through which the emergence of discontinuities or disruptions contribute to the creation of epochs in the development of competencies and the design of the industry roadmap. Authors analyze the cumulative and evolutionary nature of core capabilities and the interplay with discontinuities from a market driven perspective. By focusing on the semiconductor silicon industry, authors highlight the structural shifts within competencies following the emergence of disruptive technologies. They find that change has more cumulative than evolutionary.	Technological forecasting and social change
2007	Sainio, LM; Puumalainen, K	Evaluating technology disruptiveness in a strategic corporate context: A case study	Authors analyze how organizations, within their strategic context, interpret potential disruptions. They propose a framework to evaluate how radical is the technological change to a firm by focusing on two specific variables: the technologies' disruptive potential and its strategic importance for the firm. Then, they perform a cross-case analysis of four technologies with a disruptive potential: WLAN, Grid Computing, Bluetooth and Mobile Peer-to-peer. They show that strategic importance is not related to the perceived disruptiveness and that new technologies are not perceived as a threat to competencies disruption.	Technological forecasting and social change

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Table 3. Continued

Year	Authors	Title	Key findings	Journal
2007	Smith, R; Sharif, N	Understanding and acquiring technology assets for global competition	Authors develop a model highlighting the relevance of technology, human expertise, organizational structure, and information assets to reach a competitive advantage. They specifically focus on issues that managers must consider leveraging on these elements and connect them to the different stages of a company's lifecycle.	Technovation
2009	Lawlor, J; Kavanagh, D	The relationship between new technologies and strategic activities	Authors develop a two-by-two framework relating technology to strategy. They distinguish between "planned" vs "emergent" strategy and "latent" vs "sensible" technology defining four different quadrants: development, capitalization, creation and cultivation. They then focus on the "creation" by detailing a case history analysis.	Technology analysis & strategic management
2009	Schmidt, RS	NASA pressure-relieving foam technology is keeping the leading innerspring mattress firms awake at night	Author focuses on disruptions within the mattress industry and explore related dynamics and challenges for firms. He focuses specifically on constraints faced by incumbents both managerially and financially. He aims to understand how a new firm with a radical disruptive innovation might enter successfully the incumbent market, or how its success might be mitigated because of organizational or financial slacks.	Technovation
2012	van Moorsel, H; He, ZL; Oltmans, E; Huibers, T	Incumbent heterogeneity in creative destruction: a study of three Dutch newspaper organisations	Authors focus on newspaper organizations, and manage to identify four non-exclusive and dynamic dimensions of response to discontinuous change: timing, dimension and progression of commitment, improvement of competencies to fill the gaps. These response strategies are neither mutually exclusive nor static, and their relative. Variations in these responses are influenced by external contingencies and firm characteristics.	Technology analysis & strategic management
2013	Bergek, A; Berggren, C; Magnusson, T; Hobday, M	Technological discontinuities and the challenge for incumbent firms: Destruction, disruption or creative accumulation?	Authors challenge the competence-based and market-based arguments related to "creative destruction" a consequence of discontinuous technological change. Authors show that competence-based and market-based arguments overestimate the ability of newcomers to disrupt established industries and underestimate the incumbents' capacity to perceive and cope with new technology potential. They provide an empirical analysis of the automotive and gas turbine industries and extend theories of 'creative accumulation' by arguing that such phenomenon requires firms to deal simultaneously with (i) the evolution of existing technologies, (ii) the acquisition and development of new technologies; (iii) the integration of new and existing knowledge.	Research policy
2013	Carvalho, MM; Fleury, A; Lopes, AP	An overview of the literature on technology roadmapping (TRM): Contributions and trends	Authors perform a systematic review of technology roadmapping.	Technological forecasting and social change
2013	Linton, J; Walsh, S	The effect of technology on learning during the acquisition and development of competencies in technology-intensive small firms	Authors analyze how technological characteristics may affect learning and acquisition of specific competencies. The do so by analyzing 35 high-tech start-ups in the semiconductor silicon industry. Authors find that, indeed, the characteristics of a technology do affect the learning methods and that, among other factors, disruptiveness plays a role in this choice.	International journal of entrepreneurial behaviour & research
2015	Bertels, HM; Koen, PA; Elsum, I	Business Models Outside the Core Lessons Learned from Success and Failure	Authors analyze six "outside-the-core" projects (performed outside the "familiar" markets/ competencies on which the company traditionally operates) to better understand their risk-success ratio. They find that failure in this type of projects is not related to the distance from the core, but rather from miscalculations related to other elements (e.g. costs, channels, etc.) of the business model, which might be carried over by the incumbent.	Research-technology management
2015	Ho, JC; Lee, CS	A typology of technological change: Technological paradigm theory with validation and generalization from case studies	Authors propose and analytical framework relating technological innovations with variations in market demands. They develop the framework focusing on the photographic industry, where they identify seven types of technological changes. By describing vase studies, they show that incumbent competence disruption might be related to relations between the innovation and market demand. They also propose possible strategic responses for managers.	Technological forecasting and social change
2017	Berglund, H; Sandstrom, C	A new perspective on the innovator's dilemma - exploring the role of entrepreneurial incentives	The authors aim to better understand the reasons why newcomers manage to gain the upper-hand conditions of discontinuous technological change. Notwithstanding previous literature that has focused on incentives or established they propose that newcomers might act entrepreneurially and more proactively build or transform markets and ecosystems. They finally argue that newcomers and incumbent might have different incentives to invest in R&D and to act entrepreneurially.	International journal of technology management
2018	Das, P; Verburg, R; Verbraeck, A; Bonebakker,L	Barriers to innovation within large financial services firms: An in-depth study into disruptive and radical innovation projects at a bank	Authors analyze the internal barriers influencing the effectiveness of projects related to potential disruption within large financial services firms. They perform an explorative case study and identify six potential barriers, going beyond the traditional "barriers to innovation" to the adoption of disruptive and radical innovations (p. 107): Lack of exploiting new ideas, Inertia caused by (local) systems, unsupportive organizational structure, overzealous risk management, not-invented-here syndrome, no fundamental internal R&D.	European journal of innovation management

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CONCLUSION

In the turbulent marketplaces, companies are required to select and detect new organic growth opportunities to compete effectively. In exploring these golden rings, companies need to make risky and difficult strategic decisions, which sometimes meet the obstacles from middle and top management. To address this issue, this chapter suggests that leaders and managers must control the patterns of turbulence caused by new innovations and disruptions to yield a sustainable competitive advantage and then the supremacy in their marketplace. Furthermore, this work suggests that companies should attract and provide room for talented managers that are able to act as ambidextrous.

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KEY TERMS AND DEFINITIONS

Digital Disruption Theory: Is related to a disruption revolving around the digital world and the possibilities that have been made achievable thanks to the availability of free or nearly free digital tools and the availability of digital platforms which have extremely simplified the process both in terms of knowledges and in terms of costs.

Direct and Indirect Learning Processes: Are specific processes that involve the consumers, in order to solve the biases in their decision-making process and to allow a correct market competitiveness.

Disruptive Innovation: Is an innovation taking place in the low tiers of the market and made by entrants. This kind of innovation can target either a previously non-existent segment, creating a whole new market or it can target costumers at the bottom of the segment, progressively stealing them from the incumbent's market share.

Low-End Disruption: Is an innovation placed in the low tier of the market offering products which are characterized by a lower quality compared to incumbents' products.

New-Market Disruption: Is an innovation that targets non-consumers, creating a whole new market.

Sustaining Innovation: Is an innovation taking place in the top tiers of the market and are made by incumbents. Their *raison d'être* is to stay relevant inside the market, facing competition in a better way, meeting the growing demand for higher quality products and being able to charge even higher prices in the higher tiers.

Systematic Literature Review: Is a method of locating, appraising and synthesizing evidences by a systematic method.

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Chapter 12
Polanyi and Schumpeter vs. Neoliberalism:
Can Neoliberal World Be Explained by Schumpeter in the Context of Innovation and Polanyi in the Context of the Market?

Ilkben Akansel
Bartin University, Turkey

ABSTRACT

Neoliberalism means "new liberalism." It could be dated back to 18th century, but it is a term that belongs today. Since 1990, neoliberal rules gave many harmful effects, especially to developing countries, and those harmful effects have proceeded for labor class. As capitalism stands on its own feet, it can find solutions to regain profits. However, the concern may well be gaining too much profit gives harmful effects on a wide range of social classes. Neoliberalism is accepted as the tool of these effects by the majority of the economists. In this chapter, the authors scrutinize the consequences of neoliberalism by the mediation of two great philosophers who criticized capitalism in different ideas. Karl Polanyi's and Joseph A. Schumpeter's different opinions about capitalism will be scrutinized in order to understand the connection between capitalism and neoliberalism. So, in this study, starting with its name, neoliberalism's implementations will be scrutinized by two great philosophers.

INTRODUCTION

The most effecting era of capitalism which threw since 18th century of human life is neoliberalism era started since 1980's. Neoliberalism which also called "new liberalism" refers to a different term than classical liberalism. The difference occurred between liberalism and neoliberalism in mind, in theory and the application is far beyond the good news *laisser faire-laisser passer* of Adam Smith. Economics conditions were formed especially after the World War II has caused to occur completely different economics world in 1980's. Of course, however, the real debates have started in the 18th century. Actually,

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scientists can be separated as the absolute defiers to capitalism and the rest. In this context, there are two eminent philosophers who can be remembered: J.A. Schumpeter and Karl Polanyi. Although his deep obedience to capitalism, Schumpeter is not a scientist who sees the future of capitalism bright. On the reverse side, Polanyi is famous for his considerable criticsm to capitalism.

One cannot remember, innovation is the working engine of capitalism. Without innovation, production cannot be proceded in capitalism. But whether this innovation will help the vast amount of *middle classes'* good or bad, will be determined by neoliberal politics. This study aims to a comparative look at starting with Schumpeter's innovation and Polanyi's market economics. Both scientists are very important because of their aspects of capitalism today by the mediation of their related notions. In many cases, Schumpeter and Polanyi are investigated separately. However, this study will be the first one scrutinizing Karl Polanyi and Schumpeter by the mediation of capitalism. Thereby, this study will follow a path as such: Firstly, neoliberalism will be investigated both as description and ideologically. Secondly, three important notions which pushed Polanyi to understand market capitalism *reciprocity*, *redistribution*, *the exchange* will be scrutinized. Because these three terms have led to Polanyi's approach to capitalism utterly. With these terms, the kind of criticsm to neoliberalism by Polanyi would have been discussed. Lastly, the kind of criticsm to neoliberalism era by two great philosophers if they lived will be investigated mutually. Thirdly, Schumpeter will be investigated by his notions like *innovation*, *entrepreneurship* etc. to understand his way of look at capitalism. The issues can be seen or not seen by him will be argued by these concepts. Thus, the way he looks to capitalism will help to understand what kind of critics he might have been discussed about neoliberalism which hasn't existed in his time at least as a notion.

This study is not only important by the mediation of investigating comparatively two scientists, but also it will help us o understand neoliberal politics affecting peoples' lives negatively. Either of them is very important scientists. Schumpeter is important in terms of his approach to capitalism inside. Polanyi is as important as Schumpeter in terms of his opponent ideas to capitalism. This study will make to help people to understand what kind of benediction and malediction are brought by the implementations by neoliberalism.

WHAT DOES NEOLIBERALISM MEAN?

Capitalism proceeds in the mediation of depression and expansion. This depression and expansion generally called 'conjuncture'. Economies have thrown into collapses especially in 1920's and 1930's. Although the two World Wars brought terrible destructions, their conclusions are economically reverse. The first war was the result of the disputes of all economic, political, global in the world. The second has happened that there would be no solution but warfare. The USA, glorious after the war, has created two world economies. The first is under the effect of the World War II and the Cold War between 1950-1970. The second is a world which becomes 'financialized'. It has started in 1980's and come 1990's. Economies have always been debating science. Yet, economics is sometimes inquired whether it is a science or not. This is caused by laying down what economics approaches all economic events in one way prescription. More specifically, it is the dilemma of accepting economics as only neoclassical economics. Because neoliberalism set the road off by giving good news about world development not only in economics but also in politics, cultural etc. Of course, the world has witnessed reversed implementations of all. Because the logic of neoclassical economics proceeds like in above: It starts with such assumptions, by the mediation of these assumptions what it isn't just helping of the logic, and it goes on

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with recipes claimed which are necessary as same as valid for the whole society but serving the interests of holding the rulers of capitalist status quo (Dowd, 2013: 28-33).

The pioneer of neoliberalism carries the effects of economic order created by the biggest victor, USA. Crowning its absolute jurisdiction especially in economics, USA, is known that the easiest way to ensure victory to dependency herself. Dependency can be provided as a shortcut but debiting. Of course, the consent of wide range society classes must be taken to instituting and maintaining of their hegemony. For that reason, it is not wrong to say neoliberalism started to focus on ensuring the growth. This growth hasn't been real in order to involve all classes in society and absolutely production. By the mediation of foreign aid, the countries called as third world countries' relative growth and dependencies have been increased.

The main purpose of 1950's and 1960's is to increase total growth percentage of aided countries. "It was assumed that the returns of the growth would be *the trickle down*: Every class including the poor people in the society will be benefited by the increase of employment and goods and services created. It has been paid attention to directly decreasing poverty. It was not clearly mentioned by to decrease the poverty but it was expected indirectly conclusion of growth. […] But at the end of 1960's when it was understood the returns of growth gets *trickle down* it has caused to increase the attention to poverty." (Wayenberge, 2016: 309, 310).

This liberalist system conducted by Britain represents global freedom is sourced by the golden money system and it starts from the early quarter of 19th Century to World War I. Neoliberalism represents 'paper money' and US dollar. It means new liberalism (*neoliberalism*). "The most important difference between them currency is the difference in the quality of the dollar, its tie between gold has brought off in 1971. The second difference lies in the full freedom of the economics relationship's form of the spread." In liberalism, semi-colonial term something has exacted by the main county to subject country. In neoliberalism, there is enforcement again, but this time this enforcement cannot be seen directly. It is aroused by IMF and the World Bank (WB) as 'lending condition'. And this process followed by the USA as a hidden power. "Consequently, one main difference of neoliberalism from liberalism is the transition from the gold money system to paper money system, the other is the boss is the USA, not Britain anymore." The main difference between neoliberalism between liberalism is not sourced by the freedom in goods-services markets, the main difference is sourced by the liberation of capital mobility. The golden money has not been valid anymore, instead of it 'the paper money' and its derivatives are valid. It helps to increase liquidity. And this situation caused another result. Almost all countries are now 'developing countries', the Colonials are now history (Kazgan, 2016: 22-24).

Paper money standard has caused to call almost every country a 'developing country.' One solution suggested for this 'developing countries' is debting. More specifically, neoclassical economics presumes getting growth in production. However, this production makes developed countries gaining more profits. On the contrary to this assumption, neoliberalism offers developed countries but also suggest to be a debtor. In other words, the connection between neoliberalism and neoclassical economics has a two-fold function. Gaining profits from selling goods and financialized a developing country more than its actual needs. So, there is a win-win here.

In other words, the dilemma between the market and the state in neoliberalism can be understood by this logic. The Pareto optimum claims that both welfare and income distribution can be scattered mutually which is not true in reality. Since 1980's neoliberalism has created state dualism in civil society, it has also instituted who would in charge of implementing of economics politics. One must ask that why neoliberalism is opposed to the intervention of the state to the economy. Unnecessarily analyzed what

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is historical, it is a legitimate and legal tool ensuring a society which has the desire to live on the edge and has consciousness. To put it differently, it is a political power which decides in the name of the nation. This decision making is mostly economics politics. It means the feature of citizens is determined by economics decision. Will this feature be determined for the citizens' favorable or against?

The key roles of IMF and World Bank should be emphasized. So, their duties and effects on neoliberal ideology can be understood better historically. IMF launched to process in 1947 *de facto*. It constituted in the 1944 year in the town Bretton Woods of New Hampshire state in the USA. The year of the foundation of IMF is not a surprise. Interwar of WW I and WW II system, exchange rates, payment plans, and also giving technical and financial support (Dönmez, 2008: 497).

From 1947 to 1990 which actual neoliberal politics has first aroused, IMF's and WB's status and positions were highly different than today. Because the distinct feature of 1947-1990, the World has collapsed economically. And the situation is not only valid for developed countries but also developing countries. It is not a surprise, because all world economy has collapsed. And these kinds of devastation needs to be solved only with the private sector. So, the solution is in Keynesianism. As it is known that Keynes ideology gives a huge part to states' curing economies. Economies which are supported by both money and finance policies will cure. And here states have a role to push economies further. Furthermore, the initial stages of WB and IMF have supported Keynesian politics. The reason is economic conditions of the world needs it. As soon as the profits rates have decreased, the economic mind of these institutions have already been changed. Neoliberalism has a tight bond with globalization. Put it differently, globalization can be called the first stage of neoliberalism. Because, it predicts whole freedom in all areas as the cultural and political project.

Globalization has been put forward in the last decade of the 20th Century. And it's the most debatable concept of all. Generally, globalization means facilitating travel and migration, developing and growing up of digital communication technology, growing up of international trade, finance, and direct investment stream. And also integrating with civil society and raising interdependence (Öncü, 2008: 741).

Globalization is a cultural and political hegemony project. After the World War II Keynesianism is the main economics ideology for accumulation model. In this model, state intervention can be done and thus full employment is the main target to achieve. But in 1970's raising state expenditures cannot be compensated by tax revenues. So, there has been a financial crisis occurred. Globalization is the economic discourse of neoliberalism and it bears mainly liberalization of capital export. So, the main argument of this discourse to prove that state intervention on capital macroeconomics balance will deteriorate like liberalization control of the state, development, unemployment, and inflation. For this, capital markets must be activated by regulations and deregulations from the state as it is valid in goods markets. So, markets proceed with perfect market assumption.

According to neoliberal literature, the state handles as a tool which thinks an obvious class in the society abounding public interest. At this point, one cannot ignore at a certain point what neoliberalism contradict oneself. While neoliberalism blames the states more specifically an obvious interest group conglomerated in the state, it ignores how the private sector is benefited from it. Neoliberal politics is proceeded by less state-more private sector mind. In this direction, the state is returned to a structure giving incentives and extinguishing the law orders caused to the market failures. Put it differently, neoliberalism which is self-created, the private sector follows its very own interest truth hiding this assumption. Defended by neoliberalism the thesis of liberalization of foreign trade, liberalization, deregulation, and privatization are against to the other important topics must be kept ahead for development economics.

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The model predicted by neoliberalism is a new development model which is consisted of individualism, market liberalization, outward opening and shrinking of the state. The new political principle of neoliberal era assuring the law and the public order, providing macroeconomic stability and a minimal state providing necessary physical infrastructure. "The general politics offered all around the world giving freedom to interest rates and exchange rates which are relative prices, abolishing the foreign exchange controls, liberalization to foreign trade, liberalization of state economic enterprises and following a systemical programme reducing state intervention by the mediation of economics." (Öniş & Şenses, 2016: 347, 351). And this ideology has first aroused by WC. It has described John Williamson.

Generally definition of the Washington Consensus described by John Williamson has these proposition: "(i) ensuring fiscal discipline, (ii) changing priorities in public expenditures (iii) providing fiscal discipline makes a tax reform that broadens the tax base (iv) interest rates determining the market (v) competitive rate (vi) by liberating the market making a free international trade, removal of customs and customs duties (vii) abolition of restrictions on foreign investments (viii) privatizing of public economic organization (ix) deregulation of economics and management of financial institutions with common sense (x) assuring of property rights by law." (Gelmedi, 2016: 60).

Whatsoever political view one has, it is not rejectable that neoliberalism is one kind of a class project. As debated above, even separating countries as developed ones and developing ones is a bold classification. One further step of this classification is separating the people. And this classification allows the elite class to make more profits. It is not a surprise that looking at the division of wealth indicator published by important institutions like WB, EU etc., the most wealthy class take the big amount of portion of the revenue of the world and the others have to contend with the rest. So, after deciding to gain more profits the elite class of the world has only one issue to solve how to do it. A technical solution to submit to expand as is it was necessary.

Neoliberalism could not ensure a long-term 'sustainable' economic development, it carried the economics inequalities extreme points, it got weaken the protective social systems keeping people safe from the destructive effects on capitalism, it opened a system financial accumulation system instead of capital accumulation process, caused to have the countries debts percentage high, adopted inflation target regime instead of full employment and dragged the world economies so sensitive and open to the crisis. Neoliberalism weakens the extremisms of the capitalist system which can balance them out of the system, causes to deepen the issues (extremely accumulation, unstable financial markets, and excessive borrowing) inherently in capitalism.

Globalization generally uses for free circulation of goods/services and production factors, accumulation of technology and financial resources. And also it states factor, goods and services and financial markets are getting closer. In that position, nation-states become weaker and multi-national corporations become more powerful. The first globalization term is between 1870-1913. The second reason is they would rather borrow from state to state, but not hoping foreign help. Neoliberal politics are the barriers to developing countries. Although almost all developed countries have been thrown the same path in terms of using active state intervention and conservator politics, they do not allow these politics used by developing countries now (Şenses, 2016: 236, 242).

Neoliberal politics cannot be understood without understanding Washington Consensus (WC). It is the main idea and the implementation tool of neoliberalism. It is proposed by John Williamson in 1990. The term is used equally by neoliberal strategies accepted the USA, International Money Fund (IMF), World Bank (WB) and World Trade Organization (WTO). Hence, the component of neoliberal strate-

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gies is the substructure of WC's ideology. The necessities had caused to WC, can be counted as follow: continuing the capital of the USA and developed countries without fault, reinforcing hegemony of USA, organizing the international division of labor and guaranteeing of capital liberalization. Both in developing countries and capitalist countries expanding of capital accumulation some structural politics are tried to happen in terms of neoliberal politics for expanding capital accumulation. In successive stages of those programs are implemented, while after passing stability and structural adjustment, and applied to cool down the heating economy in short term.

As a conclusion of the historical process, after 1976 the world economy has seen a new economic notion: recession with inflation. This new situation is called 'stagflation'. And this brings a new crisis in 1980's. So, it must be handled a new economics politics which would be served by two very well-known political figure: Ronald Reagan and Margaret Thatcher. They both were called a new feature *deregulation.* From now on neoliberalism can be described briefly with this notion. Actually, neoliberalism has never had a philosophy, but it has a program to be carried out on developed and developing countries. In other words, neoliberalism's philosophy can be called no rules, but every positive rule to increase the profits. This represents itself in deregulation.

And those stages can be followed as reconstruction in production, foreign trade, accumulation of financial capital, and reconstruction on state with privation and deregulation, reconstruction on the flexibility of business process and through the disorganization of the workforce in labor market, reconstruction on the social security system. And the target of WC is not only consisted of the effectiveness of the state on economy by the mediation of national/international trade, liberalization on financial and capital markets, redistribution on state expenditure, but also consisted of an ideological/political consolidation on preventing the tendency of profit ratios to crisis causing the contradictions between capital and labor and principle of division. Because capitalism that based upon property rights needs to be protected. Besides, the intrinsic law of capitalism needs to have property rights (Wood, 2003: 192). And neoliberal politics laws implemented to beat the crisis of capitalism are handled both the struggle of part of the capital's own internal contradiction and class contradiction involving capital-labor struggle. The most obvious reflection of these struggle is rising prices, falling real wages, growing poverty, income distribution inequality. Less obvious reflections, but as powerful as the strong ones are the international monetary system, international debt crises, regulating of international demand, international income transfer competitiveness and bargaining item arrangement with (Altıok, 2008: 1297,1299).

Consequently, the neoliberal idea is a project of economic, social, cultural, ethical minds of human life. And the most interoperable part of this project is neoliberal economics. Since 19th Century the golden money standard had the international trade easy and free trade could get to operate. At the early beginning of the 19th and 20th Centuries were able to make the international trade with higher profits. Put it differently, the higher profit rates the capitalists got, the more international trade could be done. After WW II the terrifying ruins should have been compensated. So, Keynesianism would broaden until 1980's. Because, after abolishing of golden money standard unilateral by the USA, the world trade system has changed totally. Now everything should have sold and bought, not only international trade had a role in the world economy but also finance system would have allowed gaining more profits. Thus, neoliberalism took the stage. However, the problem is there is not enough money or product is available to buy what has already been created via deregulation rules of neoliberalism? Nonetheless, has this stage been foreseen earlier?

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LITERATURE REVIEW

The Fortunetellers of Neoliberalism: Karl Polanyi and Joseph Alois Schumpeter

Belonging the late 20th Century term and has continuously affected today's economic life neoliberalism has seen by two great scientists. Karl Polanyi and Joseph A. Schumpeter. Of course, these two scientists have different and totally opponent minds to criticize capitalism. First of all, Polanyi had a left-side mind and foresight to criticize capitalism. Notwithstanding, Schumpeter had a philosopher who believed in capitalism with his whole spirit. But, has a scientist who criticizes capitalism from inside. And capitalism is not only capitalism. Neoliberalism is the way and the tool of capitalism's root. Neoliberalism is the highest peak of reaching capitalism in terms of economic, social, cultural minds. So, the question is what if these two great philosophers lived today, how would they see and understand the neoliberal economic world by the mediation of their economic minds? In this section firstly, Karl Polanyi's ideas will be scrutinized and correlated with neoliberalism, and secondly, the same thing will be done for Joseph A. Schumpeter. And lastly, there will be submitted a general brief story about the topic.

Karl Polanyi (1886-1964) was one of the founders of economic anthropology affecting many disciplines by his pre-market economies and developing of capitalism. He was born and raised in Budapest. He raised around Georg Lukacs and Karl Mannheim. He was the founding president of Galilei Club and then he runs to Vienna which would be the center of fugitives of 'White Terror' in 1923. After immigrated Britain in 1933, he went to the USA and started to Bennington College. He wrote his fabulous work 'The Great Transformation.' "According to Polanyi, capitalism is not a natural and compulsory development. He especially states about this development's role in exacting on the state of the classes' firstly mercantilism, then bourgeoisie. He emphasizes those classes' demands of their enterprises, protecting of their status on states. The states become the tool of the bourgeoisie with reciprocity and prepare legal legislation, required by them become their executive power." (Emiroğlu, Danışoğlu, Berberoğlu, 2006: 707, 709).

Polanyi is a scientist who has been discovered lately. But, his iconic work *The Great Transformation* has traced to understand today's world. Because no one should not forget that as an economist anthropologist, Polanyi, was able to perfectly see the world which will be existed after him.

It was only in the decades after his death that Polanyi and his book would become iconic. In recent years he has been ubiquitous: one recent commentary claims (debatable, but not laughably) that his popularity among contemporary social scientists is second only to Foucault's. Yet Polanyi has had several distinct afterlives. (Luban, 2017: 68, 69)

What tries to make Polanyi in his excellent work to emphasize the attempts to bring back the 19th Century's liberal economic order including the golden money standard cause to economic, social and political tensions and collapsing many democratic regimes in Europe. As Keynes, Polanyi thinks about the golden money standard as a mechanism to reconstruct according to the interests of rent funders. And it's not a surprise to be employed thousands with a high salary by IMF and WB to insist debtor developing countries equivalent budget and 'free market'. (Polanyi-Lewitt, 2016: 71).

Thus Polanyi is said a 'fortuneteller' who sees the implementations of IMF and WB. And Polanyi understands these roles into an old economic precaution golden money standard. Golden money standard

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allows the creditors to reconstruct their loans. Because in golden money standard a sold product must have reciprocity as money. This needs to be targeted an equivalent budget. But in the programs offered by IMF and WB, this reciprocity has already gone. So, Polanyi must be listened to carefully by his great work:

The basis of 19th Century civilization is determined by the self-regulated market system. Industry revolution, market system, free trade and the golden standardization were invented by British. In the 20th Century, those institutions collapsed everywhere. No society can be alive without any economics system. However, even in principle before today, there is no economics system directed by self-regulated. Following Smith's path, the savage dealing with swap was made as the principal axiom. History and ethnographic studies showed that even many economics which has the market system there is no economics ruled by the self-regulated market. A market mold with a barter can create an obvious institution or an obvious market. Consequently, controlling economics system by the market cause to effects on whole social order. This means that whole society will follow as a part of the market. "Whereas the economic system will settle into social relations, on the contrary, social relations will settle into the economy." Once the economics system orders by the mediation of institutions having obvious stimulate, it must be brought an order that society should allow ordering these self-regulated laws. "The sentence what we've heard too much, 'a market economics proceeds only in a market society', means this." (Polanyi, 2013: 57-101).

A market that operates according to its own rules needs to be divided of society in economics and social grades. No society can live in a system which does not has producing and distribution, but we cannot make a conclusion separate economics institutions exist. Economics order embedded in the social order.

One specific notion what Polanyi persistently keep away using is 'division of labor'. He uses 'division of labor' generally as critics. And also, he uses 'division of labor' as to pay attention to a work which is divided by geographical conditions. For Smith, 'division of labor' and 'the market' are almost same like two sides of a medallion; for Polanyi, the notion 'division of labor' is nearly censored. Polanyi would rather believe Smith is not only a pure economist but a social scientist as well. This Smith is actually the premise of Polanyi. (Özveren, 2010: 19-52).

So, one of the most important defenders' of capitalism, Smith attributes an important role to the division of labor. Because division of labor is natural. And every individual's role caused by the division of labor is 'homo economicus'. Individuals are rational creatures. They know their roles in nature and all individuals accept these roles voluntarily. On the contrary to Smith, Polanyi believes in the cultural way of economics. It means there is no natural way of division of labor. Division of labor is caused by the roles determining socially. So, this social determination has no capacity to exist a self-regulating market. On the reverse side, Polanyi industry believes in the natural way of land, labor, and money and he totally rejects a self-regulating market idea for those.

As the imagination of the expansion of the self-regulating market including land, labor and money were more revelotuniary invention than early-stage capitalism. Land, labor, and money are the imaginary meta because they are not produced for selling. Polanyi insistently emphasized that makes a necessity the society bow down to the necessities of the market rules through being meta of land, labor, and money creating the self-regulating market. However, as Polanyi reminds that the politics applied by society can give harmful effects on self-regulating markets (Polanyi-Lewitt, 2016:74-76).

So, Polanyi has a sharp distant vision that neoliberalism would cause to have harmful effects on society both economically and socially. Because the main idea of neoliberal politics to make a market mind on land, labor, and money. All have some regulations. Actually, more than regulations the deregulating rules are embedded in these production factors. All production factors become as one each meta and then sell as a product. Further becomes a meta these factors become one each self-regulating market.

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And more pathetically, these land, labor, and money are served as if they would not be served as on each self-regulating market, no one was not is benefited from them. For instance, agriculture has been turned a self-regulating market by only making big companies. And foods will be eaten by only those ones. Or, one can see how labor market becomes a self-regulating meta, but also it is turned to be an opponent way to state. And of course, money here is the key role. With financial regulations, all money mechanism and also the other two production factors can be controlled easily.

Put it differently, telling a 'fairy tale' about civil society is a useless tool to show a different aspect of bad governance. Frankly, capitalism has more choices to increase its profit rates. And civil society is of them during the last decade of the 20th Century. How capitalism be supported by state but in a different situation. In 19th Century and in 20th Century comes to 1970's the profit rates of capitalism could have managed capitalism. Because within two great World Wars made societies' all national sources destroy. And in here, states could get national sources ready for the private sector (*can be read as capitalism*). And the private sector could have managed all sources submitted to him independently. To a certain extent, as capitalism can manipulate the ratio of capitalist labor, things were going without the problem. However, the more social help has been given by states, the more rights have been asked by society. This situation has caused to an unbalanced ratio between profit and labor. So then, neoliberalism has caught up. Here, the neoliberalism has voiced the civil society gun. Within civil society, one can catch a bird with two stones. But, it didn't happen like that. Applicators of neoliberalism thought that if civil society can be applied to government, the rules can be lost up in favor of private sector.

Apparently, civil society is responsible for many cultural (the non-market) factors: Civil society is expected to be honest, trust, diligence etc. and those factors order the market. And it makes it for cultural factors like families. With the order, the non-market factor will order the market failures. Also, it will order the state's failures. Because if any market allows being ordered by the state, it will definitely occur a failure. Although, if civil society replaces the state, these kinds of failures will be destroyed.

For Polanyi, the keyword was society. We noted earlier that he spoke of the "discovery of society" as an important event in modern times, even if he never clearly explained the rich meaning which he gave this phrase. Since society was so complex, human actions in society were always accompanied by unexpected consequences; in short, society was opaque and ambiguous. (Baum, 1996: 45, 46)

If one can look neoliberalism era via the eyes of Polanyi sees neoliberalism tries to fulfill both cultural and functions. The cultural functions are fulfilled by civil society. The duties are actually obliged to state is now acting by civil society. Neoliberalism is pushing civil society because it needs to be shrinking the state's responsibilities in order to be raised by its profit. Because theoretically states are expected to fulfill both security and raising the wealth of the nation. This situation might be valid for the world of 19th and 20th Centuries of what thought Polanyi, however, this is not true for the 21st Century. The reason is the term thought by Polanyi and the term of neoliberalism has one main difference in terms of the aspect of the state. Nonetheless, the state in what Polanyi assumes should responsible for raising the wealth of the nation. Of course, it does not totally proceed for the citizens. But, at least that's because the state represents the nation-state it should have been expected to cave nation's interests. Yet, the state in neoliberal term is not wanted to be a nation-state. The state should be wanted as a tool for raising the profits the favor of private sector. And also the social functions are fulfilled by the market. The market is an undebatable taboo in the neoliberal era. Because the market is assumed to serve every facility to the customers (*can be read as citizens also*). All necessary facilities are produced by the market without

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ant permission or asking any real necessities to the customers. The market is the giant *paternal figure* to think all customers. And Polanyi is the greatest scientist to see what will happen if the production factors are turned out to be a market. Normally, these factors cannot be bought-sold. However, neoliberalism not only couldn't have sold these production factors as goods but also it creates sub-title goods of them and pretends as if they were alive people must be obeyed by the real people. More frankly, the deregulation rules offered by neoliberalism dedicate people as if they were not being changed a prophet's word.

This is maybe the most dramatic emphasis for neoliberalism. Because the main idea and the main target of neoliberalism by the mediation of deregulations rules make people one each volunteer customer, on the other hand, they make them shiftless. They turn out to be robots what would be served them. Although Polanyi has an exact right that people are creators of their culture, in the neoliberalism term the system would not allow people to sustain it. Because even culture is created by neoliberalism and its economics rules. And people tend to be a different person as if (s)he wouldn't be the one herself/himself. They are afraid of losing their jobs or excluded by the system.

Polanyi's work will help us place the informal sector within the overall context of a market economy without necessarily dissolving its characteristics into the market mode, market logic, and profit-seeking agents. (Özveren, 2005: 767)

Polanyi who sees the market system once unbound, the economic became disembedded from the social is the key element of understanding the neoliberal idea. The neoliberal idea works with WC rules. The main theme of economics idea is deregulations. And this deregulation is supplied by these unbound with the social. Let's evaluate them one by one in terms of Polanyi's disembedded: ensuring the fiscal discipline is also means that someone's revenue will cut. Because due to the equilibrium fiscal discipline means to cut the citizens acquisitions. The main idea here state will only be responsible for the protection of the country. But, where is the responsibility for citizens' prosperity? There will be no prosperity for citizens. Because this economic *so-called* precaution disembedded from the socially changing priorities in public expenditures[1]; firstly, one should remember that neoliberalism expects the capital to increase its profits. So, public expenditures should not be considered by the public. Because the fewer expenditures are paid for the public by the private sector. iii; although many attempts to broaden the tax base, it shouldn't ensure absolute justice in taxes. iv; this item cause to be thought that economics consists of only interest rates. As a conclusion of this only stock market is focused on by many professionals. And any state economy is bound to tie increase-decrease on interest rates. The real sector is excluded which is the core of the people. Because people do earn their life's in this sector. Put it differently, becoming disembedded from social is the most seen in this item. v; this is directly related to again development. Because before neoliberalism era states have a choice to determine the rates, but neoliberalism has abolished this chance with the discourse of competitive markets. Actually, in the neoliberal term, competitive rates turned to gain more profit to the private sector. And which country gives more rate percentage it means that one has more debt than other countries giving low rate percentage. vi; the most important item of WC. Because, (vi) and the others all suggest abolishing all rules abolish the social. Those rules suggest states to ignore people. The social one is ignored; actually, economic activities are embedded in the social. Disembedded of social means ignoring individual's economic activities. People are exclusion by WC rules from the social economics activities. And Polanyi with his magnificent genius has guessed what would happen if economics activities are disembedded from social.

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Organizing of production and distribution has firstly delivered by a machine. So, what is the destruction of the market? Polanyi imagines three imaginary meta: labor force, nature, and money (Eres, 2008: 759, 760).

This determination of Polanyi may be the most distinguishing and dramatic one of all. Because, since 1980, but at last 1990's, neoliberalism created an area itself to capture people both economically and socially. Neoliberal ideology, on the one hand, constitutes a system of value to convince people of the market system. The way of convincing tells to people non-market system can create the wealth. Supporting civil society can be accepted as this non-market conditions.

For both great philosophers, civilization has a huge role for capitalism. But, firstly it must be emphasized that capitalism what they understood is so different than today's neoliberalism. Yet, neoliberalism has some similar features what Schumpeter and Polanyi thought. For Schumpeter and Polanyi after the Enlightenment capitalism has driven away a different part like the cultural difference. Cultural difference was started to understand a separation of civilizations and anthropology. Actually, today neoliberalism achieves this goal by the mediation of the formal and the informal institutions. Accepting as the formal sector the private sector and its supporters like WB, IMF etc. and unaccepting institutions like state intervention to economy, unionization etc.

Looking historical background of neoliberalism its ancestors are accepted as Friedrich von Hayek and Ludwig von Mises. Those philosophers have many contributions to develop the neoliberal idea. So, Polanyi can be accepted as the first philosopher who criticizes neoliberalism before it was born. Because "Polanyi wrote his book (first published in 1994) as a criticism directed at Austrian economists Friedrich von Hayek and Ludwig von Mises whose legacy inspired the neoliberal resurgence." (Özveren, 2007b: 549).

As arguing self-regulated market he truly emphasized on economic civilization will be defeated by the social reaction. Whatever told the supporters of neoliberalism even the most supporter of private sector proponent sees that neoliberal implementations are falling down. The rules suggested by neoliberal idea make the especially developing countries more debtor.

After Polanyi, human needs and motives so ahistorically formulated before were cast in a new light by recourse to the anthropological evidence concerning 'primitives'. Despite differences among themselves, Polanyi, Veblen, and Schumpeter benefited from the counterpoising of the old and the new and thereby provide a reconstructed institutional economics with another fundamental attribute. (Özveren, 2007a: 805)

Maybe the most important aspect of Polanyi, when we discover his trace in neoliberalism, has not served a progress it seemed to be. And it highly interesting and unique way that the world Polanyi argued in his main assumption can be seen in the 21st Century. Although the 19th Century civilization was not the progress it seemed to be, the 20th Century neoliberalism couldn't be either. Because the main source fed by two ideas are the same. In the first one, the 19th Century, all markets were created initially. So, they have no chance to produce a civilization. Once they were trying to survive, they wouldn't allow any human progress. Secondly, the neoliberal world is the most advanced one of the 19th Century. Here, there would be no chance for civilization anymore. Because in this term in terms of WC and other stuff of the neoliberal world is impossible to create a civilization. Although, the civil society discourse is argued in neoliberalism. But, one must remember that there is the connection between civil society and civiliza-

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tion. Both are actually opponent each other. Civil society idea serves neoliberalism in order to reduce the state's power. On the contrary, civilization what Polanyi thinks helps to improve state's functions.

Up to here, consequently, Karl Polanyi was an eminent scientist could have seen what will happen in the early beginning of the 20th Century in economics world. Firstly, his assumption about golden standardization is a very brilliant one. Because the golden standardization has caused to create a self – the regulated market which is the main idea of neoliberalism. However, Polanyi is completely opposed to the idea of the idea of the self-regulated market. Because for him, economic relations are embedded in social relations. And this system is determined by his famous economics consequences: *reciprocity*, *redistribution*, and *exchange*. And those are proceeded by production factors: land, labor, and money. Actually, these production factors cannot be sold and bought, but so-called self-regulated market makes them as a good. So does neoliberalism. What neoliberalism makes with these production factors can make them one step further. All are changed as a self-regulated market. And also, to proceed it some regulations and deregulations are submitted by WC. And what Polanyi thinks about the connection between pre-capitalist world to the capitalist world has realized since 1990 by the mediation of WC rules.

And other genius scientists, Joseph Alois Schumpeter can be evaluated by the mediation of WC rules. Briefly, Schumpeter's main idea is about entrepreneurship and money-credit system. Money-credit system creates the engine of working capitalism. And with this supporting system entrepreneur is the one who serves to find new things carries economics to far edges. But, unfortunately considering the rules of WC an entrepreneur has no choice but to surrender monopolies. Because the rules suggested by WC will sooner or later create a monopolistic end. It means the creation of an entrepreneur turns to creative destructions. However, this creative destruction is not the one what Schumpeter thoughts. It's beyond that. Too monopolizing and supporting private sector by the rules of WC or PWC turns the capitalism.

[…] Schumpeter concluded that capitalism as a purely economic logical construct was free from a tendency towards self-destruction. This meant that one could not argue that the capitalist engine would eventually fail for good because it could not run any longer. By reaching this conclusion, Schumpeter broke his ties with various kinds of classical arguments, underconsumptionist or otherwise. (Özveren, 2000: 53)

This prediction has a unique feature. After the end of the 1970's falling profit rate wanted to be regained. And the best way of getting it finds an old solution with a new recipe: Neoliberalism This time it needs to have some new rules. So, WC and then PWC would be the rules of the new term. Initially, the rules and the mind of neoliberalism had worked. However, then the fairy tale ended. Implementing with these rules neither help the developing countries nor they were survived from debt crises. Nevertheless, the debt crises were getting worse. WC rules have no favor any longer to developing countries. On the contrary, guessing with the genius of Schumpeterian mind, this kind of capitalism went further a tendency towards self-destruction. Shortly, Schumpeter made a one hundred percent right that eventually capitalism will destroy itself. There is no doubt that no other solution has not been found than neoliberalism to destroy capitalism.

Schumpeter assumed, as a basic assumption, that money is an institution. The concept of a social accounting system gives rise to a general theory where money principally acts as a unit of account and a clearing process for debts and claims. […] We especially show the key role of the central bank, which ultimately manages and disciplines the credit-led capitalist economy through an appropriate monetary

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policy. This means both distinction and hierarchy between credit and money. (Lakomski-Laguerre, 2016: 491)

As a genius of Schumpeter if money was accepted as an institution today many economics struggles would be defeated. However, it gives harmful effects to the market as it produces more than production. And this money production creates a distinction between credit and money. What offers neoliberalism to deregulate the markets seeing above are related to Schumpeter's ideas about credit and money.

So, one can precisely say that neoliberalism has not ever been a dynamic way and also will never be a dynamic status. One main reason for this situation can glance at WC procedures. Applying all these substances will be able to break the credit-money system. And all these matters will be able to destroy the innovative soul of the people when considering how an entrepreneur is important to place in Schumpeter's idea, it can be frankly said that Schumpeter did not ever mention about when he gave a great importance to the money system. But what if people are disabled to pay their debts, what will be the next stage? In Schumpeter's mind, the credit system will solve the problem by the financial system which has a major objective of monetary policy. This is assumed that there is a disequilibrium in the capitalist system. Where major distinct lay down between Schumpeter's capitalist system and the neoliberal capitalist system. However, with one main different status: Schumpeter's system is the dynamic model, so it allows to recreate itself when happens s disequilibrium. Yet, neoliberal has a static character, it won't allow any disequilibrium. Because when any disequilibrium occurs in neoliberal politics, for instance, WC rules, the system has no automatic tools to repair itself. And this consistently is caused by the false money-credit system in the neoliberal system.

And this technological development and the debt crisis are foreseen by Schumpeter. His famous idea about innovation and the process feeding it; the entrepreneur have arisen in neoliberalism era. But of course, not the way he thinks of it. Let's see what if Schumpeter lived in neoliberalism era, what would he tell about?

One of the main assumptions of neoliberalism is the free competition in the market. Of course, this self-owned competition is not valid for the all firms which want to be involved in the market. As a resemble like big fish small fish fry, monopolization is the indispensable fate of neoliberalism. Today when we look at the all firms speaking in whole sectors can be created by either combining with little firms or capturing little firms by one sole firm. This monopolization has caused to only one big firm creates the idea, production technique, production organization and raw material rather than created by one by one entrepreneur. Put it differently, diversity has gone. Because collecting all innovations into one monopolized firm is also created a bureaucracy. This bureaucracy has caused to through a single bureaucratic system caused by collecting all innovations into one hand. The conclusion of this is what will be produced or not will be determined by the market. "The market bureaucracy" differently from the state bureaucracy is started which goods or services will be produced is determined by the answer what brings more profit instead of public interest. Schumpeter tells as a fortuneteller the assumption of innovations create a firm bureaucracy can be evaluated guessing an implementation of neoliberalism which is arisen long after of his time.

From 1870's till today mainstream economics has turned to an abstract equilibrium analysis. As such way, it has no power to produce products in developing countries. The problem of these countries is not to understand and not to protect the equilibrium, but to break their unwanted equilibrium. The classical economics' approach offers the mediation of change and growth, mainstream economics makes

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a foreground equilibrium analysis and it tries out of the agenda. The reason what created development economics is this. In order to understand by the view of Schumpeter not voluntarily but with a different sense is important to neoliberalism. Schumpeter "is the person who creates general passes evolution. With this sense, he does not only become a development economist but also, he puts forward his economist identity." Schumpeter's evolutionary analysis makes the technology dynamics way and it reverses the mainstream economics technology obsession. In a market which has full competition (at least can be evaluated close to full competition), the pioneer firm which opens technology can take the annuity of monopoly while the other firms can be caught. What Schumpeter attributes importance secondly is when R & D gets ordinary to the cost will rise. Will big firms or the little firms be breasted unpredictable return? If the answer is 'yes' once it can go out with the obsession with the market (Özveren, 2005: 100, 102).

The system of thought of neoliberal economics politics is fed by neoclassical economics. The first point of this system of thought is the market obsession. The price in the market can be determined by the mediation of supply and demand. No firms can be determined by the price on their own. Shortly, full competition is available. High costs R & D which the firms cannot be afforded by the little firms have no word to be determined by the price. On the contrary, those firms determining the price and spreading the price to the market which are born high R & D in charge of this they take the slide of the market. These firms collapse one myth for neoliberalism by the mediation of technology: If neoliberalism exists it means there will be no market called as full competition. And also, if it is talked about determining the technology and using the technology all assumptions imposed by neoliberalism will be invalid.

Capitalism is a social relationship system continuously in an evolution. Production needs to be brought more appliances, more capital, and more employees. This expansion has caused a transformation in institutions representing of these private properties' production. These had to bring together the executive boards and had to consist of general boards which are made by shareholders. " "In the very 1900 year, in the time of companies' revolution most of the big companies turned to shareholder companies: it makes the capitalist property more collective." […] "Economics mechanism puts in place central coordination and audit. In the national platform, it would be made by governments, ministries, and contradictory. One of the most important of this is he brings a bank: European Union, International Money Fund, Worl Trade Organization are following this. These institutions are valid to capitalist production relations alive." (Duménil &Lévy, 2015: 20, 22).

Schumpeter's entrepreneur, if he were alive today, how would he look to neoliberalism, is important. Because the entrepreneur is the most dynamic power of capitalism. What creates this dynamics will be being mentioned above, but it is closely related to *creative destruction*. The world economy could not have faced a destructive picture if any care could have been applied of Schumpeter's entrepreneur notion instead of using neoliberal politics would aplied neoliberal politics' strict and shaking fiscal discipline politics. However, no matter what neoliberal politics would obstruct an obstacle in order to their strict attitude. The reason for this, the main sense of economic growth will not be handled by the mediation of entrepreneur, on the contrary, it is not desired to have a word except a couple of big firms.

The entrepreneur of Schumpeter while it is speculating as if (s)he tried to build a castle like a medieval lord. Winning will, fighting instinct, becomes superior to the others (Schumpeter, 1961:93-4; Kızılkaya, 2010: 22) makes the entrepreneur actually appropriate for the neoliberal era. The neoliberal capitalist philosophy generally advocates being abolished unconditionally all the obstacles in front of the market. Here the leading part belongs to the firms. Of course, the entrepreneur what Schumpeter understands cannot possible to enter the market alone, the firms are taken over this duty in the neoliberal era. The difference between the Schumpeterian entrepreneur and the entrepreneur firm in neoliberal era is in first

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one anyone who has winning instinct in any sector can gain a seat; the second one can make this only company merger.

If Schumpeter was alive, the answer of how he could see to the neoliberalism can be understood by his opinions about credit, money, and economics chaining process. Because with this system capitalism is created. The big difference lies down between the wealth created by capitalism and created by neoliberalism's seizing the wealth.

Firstly, it is understood what kind of functions are taken over in economics. Mankind's path going from the swap to money can be achieved to increase its wealth after invention of money. The money becomes the pure tool to get easy the swap. Neoclassical economics (*also called mainstream economics)* handles money with a real analysis notion. The money, defining with the metaphor as 'the veil', has no power to affect the economics variable (Schumpeter, 1954a; 277; Kızılkaya, 2010:85). The mainstream economics sees the money neutral holding the front barter function. Theories are developed to barter function and pushes an edge value measure function which is critically important. Schumpeter refers to the money changes the economics system different from the mainstream economics.

According to Schumpeter, payment instrument which is one other function of money takes every kind of role in debt payment. This role includes offers, punishments, donations, compulsory/indirectly payments too. "So, the payment function of money is described as make possible to value measure and exchange tool functions." (Kızılkaya, 2010:92). For Schumpeter, the starting point to focus on the source of the credit. Unlike the mainstream economics the source of the credit is not savings, but price money which is created by banking and/or financial system. When money was given as prize money by banks as credit, it arises as sovereign to another real value. The credit created by banking system eventually affects the real activity. For Schumpeter this interaction will not be squeezed in short term, it will form the economic development in long-term.

Neoliberalism is a substantial fetish . Objects, events, phenomenon, and notions are consistently fetishized. Because based on neoliberalism all institutions and notions are shaken by the mediation of this reification. Thus, they break their context off. They are located against the things which they have already broken off. Because they are broken their context off, they turn to an unquestionable taboo. In neoliberal economics are break their context off actually. Breaking off its context makes the thing to be done as for how it wants to get. Economics turns to a technical tool ignoring labor, dividing, provision of income justice, the worker rights etc. which are related to all social classes. Of course, turning the economics as a technical tool cannot be done suddenly. It has a systematical and long history. This historical context based upon a state-market dilemma. The state-market dilemma brings a sovereignty contest. The ones who advocate the neoliberal idea or at least standing by it reflect the state as if it is located against and foreign to civil society and the market and the social classes. This dualistic look to the dilemma between state and the market is seen more in developing countries examples. Because these countries have stronger state and society classes historically. Turkey is one of the well-known examples of this. The reason is, Turkish history which goes to B.C: it has a strong militarized sociology and creating a state tradition lies down at the top of the Ottoman Empire.

Consequently, for Schumpeter who is a deep relationship between capitalism, neoliberalism era may be the time of collapsing the capitalism. What did he say about the future of capitalism? "Will it be survived? I don't think so!" Because for Schumpeter capitalism must proceed with innovation and technology. And this technology proceeds through entrepreneurship and the entrepreneur will make his genius innovations by banks' money-credit system. Nevertheless, the rules especially arisen by WC and PWC have caused unbalanced capitalism system. Especially, with these rules system pushes entrepre-

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neurs not to be entrepreneurs, but to be monopolized by big firms. And these big firms will cut their R&D's and less innovation. Less innovation means less technology, the less technology means the fewer entrepreneurs will be born. And there will be an unbalanced in the money-credit system. On the other hand, neoliberalism era represents the time Schumpeter thinks about his capitalism's ruin.

SOLUTIONS AND RECOMMENDATIONS

Neoliberalism is destructive in everywhere. Especially, neoliberal economics politics have caused to ruinings in developing countries. However, it has still claimed that the World Bank, IMF's strategies have no good choies for developing countries. So, is there any solutions to solve the issues of developing countries? It can be answered by two opponent ideas. The first one is, Polanyi's mind who was a very opponent to capitalism. Of course, neoliberalism can be called as 'developed capitalism'. Therefore, if capitalism can be arranged by in an advanced way for developing countries by the mediation of Polanyi's *redistribution*, *reciprocity*, *exchange*, it will help better economics opportunites for developing countries. And the second one is, Schumpeter's view who had a very supporter of capitalism. That's why, Schumpeter's *credit and banking system* can be supporter for new innovations and new innovations can be create new plants. And it will help to solve the issues what neoliberal economy politics creates.

FUTURE RESEARCH DIRECTIONS

This study aims to scrutinize adverse effects of neoliberal politics by the mediation of Schumpeter's and Polanyi's views. For this reason, Polanyi's view for capitalism has been scrutinized by his three favour terms and Schumpeter's view has also been scrutinized by his famous innovation and credit system. Althought, these concepts are accepted by opponent terms to each other, one can see carefully they are not. If capitalist idea can change its mind by the mediation of those concepts it will change neoliberalism's adverse effects immensely.

CONCLUSION

Since capitalism has first arisen in the 18th Century, it has the debatable process for all economic classes. The labor class is the most unfavorable class of all. Because all its acquisitions are cut by capitalism's elite class. And everytime elite classes were able to find giving a name to this cutting. In late of 20th Century, it is called as neoliberalism. And neoliberalism has achieved these goals with deregulating the markets. Actually, these markets have already been debatable characters. And this debate comes from inside idea of capitalism and outside the idea of capitalism.

In this study, we tried to scrutinize the neoliberalism term and its implementations by the mediation of two great philosophers: Karl Polanyi and Joseph A. Schumpeter. Polanyi has opponent ideas to capitalism which can be described to close Marxism. On the other hand, Schumpeter has an idea who believes in capitalism with all his heart.

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However, it does not mean that they won't come together at the point of the opposition of neoliberalism's implementation. Generally, for Polanyi economics is also an economics anthropology and for that economics cannot be separated by culture and sociology. And the deregulation rules are very opposed to this human nature. And again generally, for Schumpeter, capitalism must go forward with the full support of giving entrepreneur, but the system submitted by neoliberal rules have very opposite implementations for entrepreneurs.

As a conclusion, what if these two great philosophers lived today, how would they see the neoliberalism? The answer is what they both come to the same corner, it will a ruin for all economic system all around the world.

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KEY TERMS AND DEFINITIONS

Credit System: Creating money by the mediation of banking system.
Innovation: Creating new things.
Joseph A. Schumpeter: The great supporter of capitalism.
Karl Polanyi: Founder of economics antrophology who was the writer of *The Great Transformation.*
Neoliberalism: It can be called new "liberalism."

ENDNOTE

[1] This interpretation will be done by the mediation of the citation of Gelmedi which can be seen in the Bibliography.

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Chapter 13
Analysis of fluctuations in Credit-Deposit Ratio of Indian States:
From Pre-Globalization to Post-Financial Crisis Phase

Ramesh Chandra Das
Katwa College, India

Utpal Das
Katwa College, India

ABSTRACT

Under the backdrop of the liberalization and globalization policies undertaken by the Indian government and the outbreak of the global financial crisis, the present chapter tries to study the trends, fluctuations, and ranking of the credit-deposit ratio of the Indian states for the period 1972-2015 comprising pre-globalization to post-financial crisis phase. Applying descriptive statistics, product moment and rank correlation coefficients, and student's "t" test and "F" tests, the results show that there are significant increases in the credit-deposit ratios of most of the states during the phase of financial as well as post-financial crisis phase compared to pre-globalization and post-globalization periods, but there were significant fluctuations in credit-deposit ratio in the financial crisis and post-financial crisis phases. Further, the rank correlation results show that the states maintained almost similar ranks in their credit-deposit ratios for the phases of pre-globalization, post-globalization, pre-financial crisis, and post-financial crisis. The study, thus, suggests that the Indian banking sector has not been affected adversely.

INTRODUCTION

There are historical debates between the supply side economists, the classical school and its followers, and the demand side economists, the modern schools led by J. Schumpeter and later, J. M. Keynes, regarding the necessity of the financial sector in economic developments of an economy. Adam Smith

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did not consider that the financial sectors had any sort of influence upon the production activities and so growth of a nation. Smith, in his famous book, "Wealth of Nations" pointed out that the farmers, producers and the businessmen are the important agents of economic growth. It was the business enterprise, competition and free trade that would lead the farmers, producers and the businessmen to expand market size and which, in turn, made the economic development inter-related. Schumpeter (1911), on the other hand, postulated the counter argument. According to him, society progresses through the trade cycle in a dynamic and discontinuous process. In order to break the circular flow, the innovative entrepreneur's business activities are to be financed by expansion of bank credit. Schumpeter calls it as 'creative destruction'-a process by which invention and innovation replace old production methods with the help of the financial intermediaries. Therefore, bank credit should have some impact on the performances of the real sector of the economy. Patrick (1966) is probably the first to define clearly the inter-relationships between bank credit and growth of output, especially for the undeveloped countries. According to him, there are two ways of explaining the inter-linkages between the bank credit and growth of domestic output. One of the ways, as he pointed out, is the Supply Leading Approach (SLA) and the other is the Demand Following Approach (DFA). Later there are a series of research articles that deal with the impact of financial sector in general and the banking sector in particular on the economic growth of a country. Some studies have shown that growth of the financial sector has a positive influence on the economic growth of an economy (Diamond, 1984; Greenwood & Jovanovich, 1990; King & Levine, 1993; Demetriades & Hussein, 1996; Jayaratne & Strahan, 1996; Beck et al, 2000). The study of Bhanumurthy and Singh (2009) has shown that the high growth of Indian GDP in the recent past has been, among others, due to financial inclusion. They have shown that branch expansion is not the proper indicator of financial development. In contrary, the proper financial indicator is credit-deposit ratio. They observed that there has been co integrated relation between credit-deposit ratio and State Domestic Product ratio.

There are some studies that are skeptical about the positive association between these two components. Lucas (1988) did not found any association between economic growth and finance and he termed the relationship between finance and economic development as 'over-stressed'. Other related studies in this regard are Demetriades & Luintel (1996) and Sarkar (2009).

The Indian financial sector has had a tartan history. The story of the post-independent Indian financial sector can be described in terms of three distinct phases—the first phase spanning over the 1950s and 1960s demonstrated some elements of instability associated with laissez faire system but underdeveloped banking; the second phase covering the 1970s and 1980s began the process of financial development across the country under government control and management but that was escorted by a degree of financial repression; and the third phase since the 1990s has been characterized by gradual and calibrated financial deepening and liberalization or globalization (in the study the term liberalization and globalization will be used interchangeably). Within these junctures, the Indian economy experienced a deep crisis during the early nineties. There was a sharp decline in the country's foreign exchange reserves that was hovering around only $ 1 billion. Inflation rate was at its peak level of around 17 per cent. Fiscal deficits mounted to high levels at around 10 per cent of GDP and the current account deficits was about 3 per cent of GDP creating an unfavourable balance of payment situation. The overall growth of the real sector was at unsatisfactory level. To tackle the crisis, the government of India launched the policy of major economic reforms in 1991 involving both macroeconomic stabilization and structural adjustment programmes. One of the major areas of such reform programmes was the financial sector reform that was formulated by Narasimham Committee to examine all aspects relating to the structure, organization and functions of the financial system. Out of the entire financial system the banking industry has been

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chosen for special emphasis in our present analysis. The Committee identified several factors related to the performance of the banking sector that were hindering the allocation of banking funds to the real sectors. The crucial factors are the preference of the banks in favour of the government security investments over their statutory limits instead of investing in the real sector in one hand and disparity in the allocation of banking funds to different states in the country on the other hand. The result of that would adversely affect the utilization of deposit and so the credit-deposit ratio would fall.

The global financial system has experienced several ups and downs in the last two decades ranging from the East Asian Crisis to Global Financial Crisis (GFC). The effects of these crises were not confined to the countries or regions concerned but they spread to the other economies of the developed and developing zones through the trade channels in the globalized world. India was not the exceptions to these effects. Volatility in the global financial system makes the banking and financial institutions of the economies to restructure their deposit and credit policies in particular and overall financial managements in general. The actual utilization of banking deposits, as measured by the credit-deposit (C-D) ratio, thus, gets affected by the global crisis. Further, the C-D ratio may change due to opening up of the domestic economies before the world market. The liberalization policy taken up by the Indian economy, hence, may have changed the C-D ratio in aggregate as well as for the state levels.

OBJECTIVES OF THE STUDY

Under the above backgrounds, the present chapter attempts to test three hypotheses. First, whether there are significant mean differences in credit-deposit ratios for all the major states in India for different phases of financial developments at home and global levels, second, whether there are significant fluctuations in the credit-deposit ratios for the states and for different phases of developments, and third, whether the states are maintaining equitable positions in deposit conversion rates.

REVIEW OF LITERATURE

We present here a list of studies available from the literatures to justify the rationale of undertaking the present study. In a state specific study, Das and Maity (1998) examined the movement of credit –deposit (C-D) ratios of commercial banks particularly in West Bengal from 1972-73 to 1993-94 and compared these results with those for a selection of eight states. Further they have analyzed the effect of credit on the movement of output change of these selected nine states. According to this study, from 1972-73 to 1993-94, the calculated credit-deposit ratio has shown a downward trend for all the states and West Bengal, along with Gujarat and Uttar Pradesh. Punjab stays below the all India level. There has been a large variation of in credit-deposit ratio across different time periods and across different regions of a particular state. On the relation between output and credit they have found that quantity of bank credit have positive and significant effect on the state domestic product for most of the states. The study of Kumbhakar and Sarkar (2003) analyzes the relationship between deregulation and total factor productivity growth in the Indian banking over the period1985-96 that covers both pre-and post-deregulation periods. The results show that a significant decline in regulatory distortions and the anticipated increase in total factor productivity growth have not yet materialized following deregulation. It further shows that while private sector banks have improved their performance mainly due to the freedom to expand

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output, public sector banks have not responded well to the deregulation measures. Misra (2003) examined credit-output nexus in Indian states and revealed that the direction of output to credit operates for most of the states and Arunachal Pradesh, Assam and TN have shown the bi-directional results, whereas Karnataka, Orissa, Punjab and WB showed the direction of credit to output. In a specific study on why credit-deposit ratio is low for Kerala, Narayana (2003) identified that low credit amount is owing to the lack of credit deployment in industry, trade and finance. In particular, the credit amount per account in industry is very low largely because of higher share of food manufacturing and processing, other industries, and construction which report low amounts of credit per account everywhere in India- in the total. Kumar and Verma (2008) attempt to assess whether some bank groups are performing well at delivering the required outcomes for the period 1991-2006. The study reveals that the foreign bank group has exhibited the best credit deposit ratio; whereas some attention is still required in case of public sector banks where further scope for improvement exists. In a state level study, Das (2009) analyzed the allocations of commercial banks' credit in eight states and found that the reform phase has worsened the positions of the states at the all India level. In a descriptive study, Das (2013) analyzed the impact of financial crisis on the net interest margin and banking behaviour in India for the panel of banks covering period 1992-2010. It is revealed that the public sector banks were affected significantly during the crisis. We find that, during the second half of the crisis, the margin of banks with low capital and poor liquidity was impaired significantly when compared with banks that had sufficient capital and liquidity support. The study of Biswal and Gopalakrishna (2014) examines the possible determinants and their effects on banking profitability as estimated by net interest margin. Using data for 2008-13, the study classifies banks operating in India under high and low credit deposit ratio. The results show that determinants of bank profitability have varied impact for banks under high CD ratio and low CD ratio categories. In a different study, Govil and Tripathi (2014) examines the impact of the global crisis on a sample of top ten ranking Indian banks and the results show that average profitability of the banks has improved in the post crisis phase due to increasing credit demands in a consistent manner. The capital adequacy of banks improved marginally but liquidity of these banks as judged by the liquid assets to total assets, liquid assets to total deposits and investments to deposits ratio declined in the post crisis years. The impact of Global Financial Crisis on banking sector of India and Jordan with respect to the indicators like bank share price, bank capital adequacy, bank deposit- lending ratio, interest rates, and non performing assets has been done by the study of Dalaien (2016). It reveals that the crisis has positive effects upon share prices and capital adequacy but negative effects upon bank deposit ratio, interest rates and non performing assets of the Indian banks and there are negative effects upon all the factors in Jordanian banks. In their study, Sharifi and Akhter (2016) examine the performance of public sector banks through the credit-deposit ratio for 26 Indian public sector banks for the period (2008-2015). The findings reveal that the credit-deposit ratio impact positively on public sector bank's financial performance in the period under study. In a detailed effort, Mohan and Ray (2017) described trends and turns of Indian financial system after crossing twenty five years of liberalization policy. It argues that there has been significant progress in making interest and exchange rates largely market determined during the reform phase, though the exchange rate regime remains one of managed float, and some interest rates remain administered. Further it forwarded that considerable competition has been introduced in the banking sector through new private sector banks, but public sector banks continue have a dominant share in the market. The literature so far surveyed did not explore any such study at Indian state levels encompassing the issues of financial sector liberalization and global financial crisis. The present study under the above mentioned objectives, thus, has rationale to undertake.

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DATA AND METHODOLOGY

The data on credits and deposits of the scheduled commercial banks for the selected sixteen states of India have been taken from the different issues of Basic Statistical Returns published annually (from 1972 to 2015) by the Indian central bank, The Reserve Bank of India. The sixteen states are Andhra Pradesh (AP), Gujarat, Maharashtra, Orissa, Tamil Nadu (TN), Uttar Pradesh (UP), Delhi, West Bengal (WB), Assam, Bihar, Madhya Pradesh (MP), Haryana, Punjab, Rajasthan, Karnataka and Kerala. Since the selected 16 states constitute nearly 95 per cent of all India banking transactions, we can treat the outcomes of the study for the states as well as for the entire nation.

The total duration of study, 1972-2015, has been broken up into different phases signifying the relevance of pre reform period (1972-92), post liberalization period (1993-2015), post reform but pre GFC phase (1993-2006), the GFC phase (2007-09) and the post GFC phase (2010-2015). Graphical presentations of the credit-deposit ratios have been done to show the trends across the states and mean and average values of standard deviation to capture the trend and fluctuations (or turns) of the said indicator. We have then test the mean difference, variance difference and rank correlations for different phases to test our hypotheses. The first hypothesis for testing mean difference has been done by Student's't' statistics given in the following form-

$$t = (\mu_j - \mu_i) / \sqrt{(S_i^2 / n_i + S_j^2 / n_j)} \quad (1)$$

where 'μ' stands for mean value and j > i. S^2 represents variance of the C-D ratio, the degrees of freedom is $(n_i + n_j - 2)$.

For testing the second hypothesis on comparisons of variances, we use 'F' statistic whose formula is given as-

$$F = \left[s_i^2 / \left(n_i - 1\right)\right] / \left[s_j^2 / \left(n_j - 1\right)\right] = S_i / S_j \quad (2)$$

where S_i and S_j are the variances adjusted by the numbers of observations, n_i and n_j. In a one tail test, we test the variance differences in the alternative hypotheses as $S_i > \text{or} < S_j$. The degree of freedoms for the numerator is (n_i-1) and for the denominator is (n_j-1).

Finally, we have computed the Spearman's Rank Correlation Coefficient by the following formula-

$$R = 1 - \left[6\Sigma d_i^2 / \left(n^3 - n\right)\right] \quad (3)$$

where i = 1, 2, ……., n and 'd' represents the differences of ranks of a state in two different time periods. The statistical significance of 'R' has been done by Student's't' statistic which is given in the following formula-

$$t = [R^2\left(n - 2\right) / \left(1 - R^2\right)^{1/2} \quad (4)$$

where the degree of freedom is (n-2). The derivation of inference is like usual't' tests.

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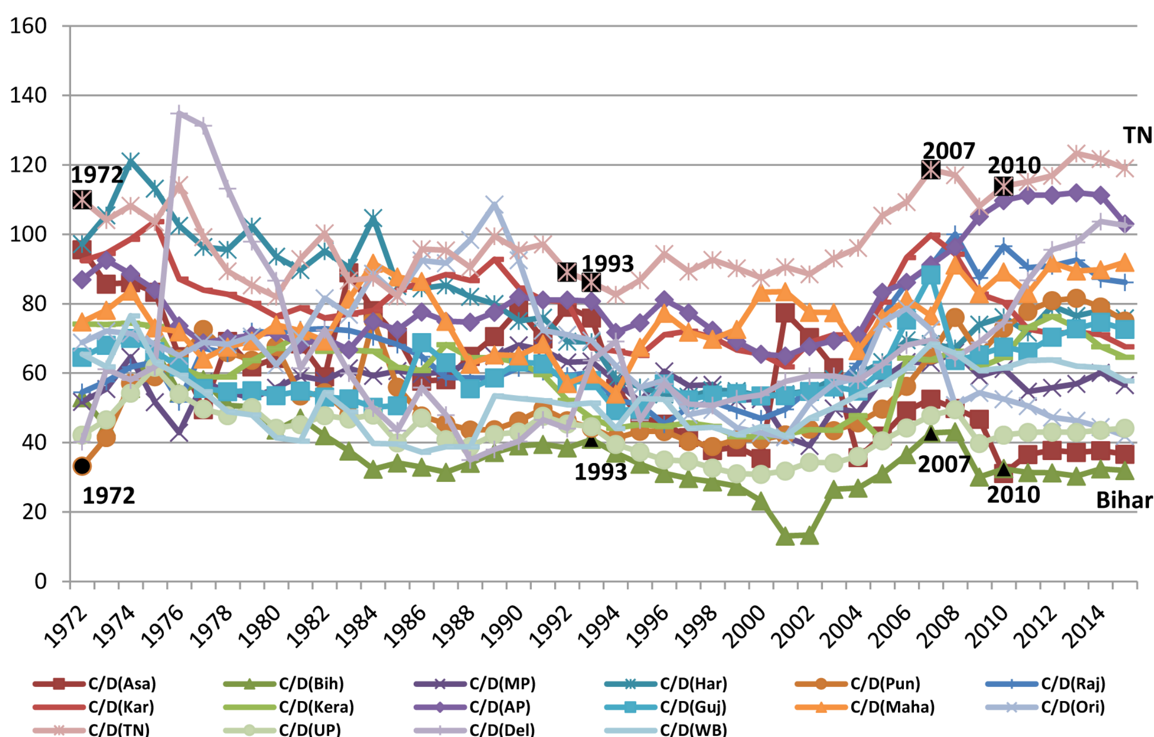
EMPIRICAL ANALYSIS

Trends of Credit-Deposit Ratio of States

Amount of bank credit and the allocation of credit would not reflect the true picture of the role of the banking institutions in the growth of a nation. The ratio of total credit to the total deposit of the scheduled commercial banks measures, rather reflect, the real activity of the banking sector in relation to the real sectors of the economy. The ratio provides an actual figure of circulation of money from the banking sector to the real sectors of the economy. A rising trend of C-D ratio implies the situation of greater mobility or circulation of funds in the hands of the banking institutions to the production units like agriculture, industry and their associate, the service sector. Rising trend of C-D ratio over time is expected to have a positive impact on the expansion of the three prime sectors and so have influence on the aggregate growth of the entire economy. In contrast, a falling trend of C-D ratio means poor flow of loanable funds from the banking sector to the real sectors and thereby has a detrimental effect on the overall growth of the entire economy. Rising trend of the C-D ratio appears when the growth of credit becomes higher relative to that of deposit. Figure 1 presents the trends of C-D ratio of all the sixteen states for the entire period of study, 1972-2015. The figure shows fluctuations of the C-D ratio for the states in different periods.

We observe that AP, Orissa and MP have established a clear upward trend of the C-D ratio in the pre-reform phase (1972-92). All states except these three have demonstrated either declining trend or

Figure 1. Trends of credit-deposit ratios of the major states in India
Source: Sketched by the authors based on the Basic Statistical Returns of RBI, https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications



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fluctuating tendencies of the series for the C-D ratios. Delhi, Haryana and TN hold the first three positions in terms of utilization of banking fund but the states like Bihar, UP and WB lie in the bottom position. During the post-reform and pre GFC phase (1992-2006), Maharashtra, TN, Delhi, Gujarat and Karnataka have presented upward trends and all the remaining states have shown downward trends. There have been falling trends for the period 1993-2001 and after that almost all countries' C-D ratios took upward trends. The reasons behind were steady decline of cash reserve ratio (CRR), statutory liquidity ratio from 38.5 per cent to 25 per cent. In additional to that, all the reform measures led to the emergence of a modern banking sector in India and resulted in improvement in many of the profitability, efficiency and stability indicators of commercial banking in India. A bunch of new private sector commercial banks were licensed in the mid-1990s, the first time since bank nationalization, in order to introduce competition, enhance efficiency and induce innovation in the banking sector. A number of measures have been initiated towards inculcating a credit culture through enforcement of creditors' rights, and hastening the process of credit recovery. The Securitization and Reconstruction of Financial Assets and Enforcement of Securities Interest (SARFAESI) Act was passed in 2002, enabling the setting up of debt-recovery tribunals and asset-reconstruction companies (Mohan & Ray, 2017). Despite the above facts it is observed that on an average there is a clear and significant decline of the C-D ratio from the pre-reform to the post reform regimes (1993-2006) for all the states. This helps us to establish that C-D ratio for majority of the states are falling, particularly during the post-reform phase, because the growth rates of deposits are higher than their respective credit levels.

The values of the C-D ratios for the GFC phase (2007-09) show downward movements for all the states in India only excepting AP. This proves that the global financial crisis has badly affected the deposit conversion profile of the scheduled commercial banks in India. Having moderate degrees of financial openness, the banks were not enough courageous to supply credits to the borrowers, instead they opted for investments on government securities.

The post GFC phase (2010-15) has ushered prosperity to most of the states except Rajasthan, Karnataka, MP, Orissa and WB. The C-D ratios have increased for the remaining eleven states with Delhi showing highest rate of recovery. The trends for the C-D ratios of the states for the entire post liberalization period (1993-2015) depict increasing movements for majority of the states compared to the pre liberalization phase (1972-92) which further establish that the banking and financial sector reforms in India has helped improving the credit-deposit ratio of the major states of the country.

Mean and Standard Deviation of C-D Ratios of States in Different Phases

The mean value of C-D ratio of a state refers to the state of average absorbing capacity of deposit by the existing sectors of the economy. As mentioned in the methodology section, we have broken the entire period of study, 1972-2015, into different phases signifying the relevance of pre reform period (1972-92), post liberalization period (1993-2015), post reform but pre GFC phase (1993-2006), the GFC phase (2007-09) and the post GFC phase (2010-2015). Table 1 and Figure 2 present the mean values of the C-D ratios of the states for all the concerned phases. Among the states, largest realization of bank funds by the producing units of the state during the pre-reform phase is done by TN (with around 96 per cent), followed by Haryana (93 per cent), Karnataka (85 per cent), Orissa (78 per cent), AP (77 per cent) and Maharashtra (73 per cent). The front runner states during the pre reform phase are TN, Haryana, Karnataka, Orissa, AP, Maharashtra, Assam and Delhi and the states with an inferior degree of deposit utilization are Bihar, UP, WB, Punjab, MP, Gujarat, Rajasthan and Kerala.

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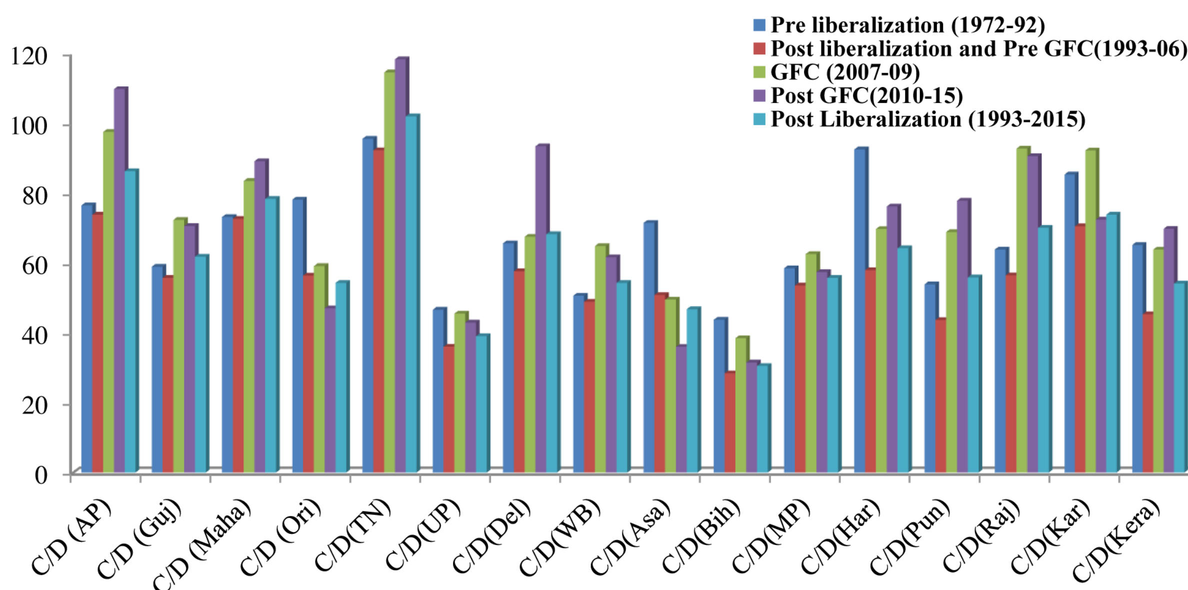
Table 1. Mean and S.D of credit-deposit ratio of states

States	Mean C-D (Pre-reform, 1972-92)	Mean C-D (Post-reform, 1993-2006)	Mean C-D (GFC, 2007-09)	Mean C-D (Post GFC, 2010-15)	Mean C-D (Post-globalization, 1993-2015)	S.D (Pre-reform, 1972-92)	S.D (Post-reform, 1993-2006)	S.D (GFC, 2007-09)	S.D (Post GFC, 2010-15)	S. D (Post-globalization, 1993-2015)
AP	76.59	73.94	97.56	109.77	86.36	7.20	6.80	7.05	3.41	17.30
Gujarat	59.07	55.91	72.44	70.71	61.93	6.20	6.35	13.81	3.30	10.14
Maharashtra	73.26	72.74	83.56	89.2	78.44	8.95	8.65	7.35	3.25	10.36
Orissa	78.23	56.55	59.26	47.19	54.46	12.54	11.66	11.66	3.87	10.73
TN	95.62	92.33	114.57	118.32	102.01	9.03	7.32	5.66	3.72	13.83
UP	46.82	36.20	45.70	43.15	39.25	5.32	4.50	5.20	0.67	5.50
Delhi	65.75	57.78	67.63	93.48	68.38	29.98	6.55	2.82	11.03	17.23
WB	50.79	49.06	64.97	61.75	54.45	10.48	5.94	3.90	2.87	8.45
Assam	71.60	50.99	49.70	36.16	46.96	11.93	14.79	2.87	2.52	13.22
Bihar	43.96	28.54	38.66	31.67	30.67	9.78	8.01	7.39	0.78	7.41
MP	58.64	53.72	62.69	57.54	55.89	5.92	7.27	3.38	2.57	6.62
Haryana	92.59	58.11	69.85	76.28	64.37	13.00	5.49	3.63	2.60	9.39
Punjab	54.06	43.87	68.97	77.92	56.02	11.09	4.44	6.18	3.35	16.29
Rajasthan	63.98	56.60	92.80	90.62	70.20	6.44	11.62	6.49	3.77	19.70
Karnataka	85.41	70.63	92.28	72.52	73.95	7.52	7.85	8.66	4.23	10.03
Kerala	65.29	45.51	63.96	69.90	54.28	5.90	5.79	2.33	4.99	12.42

Source: Computed by the authors using RBI's data on Banking Statistics

Figure 2. Average credit-deposit ratios of major states in India in different phases
Note: The vertical axis measures the averages of C-D ratio of states
Source: Sketched by the authors based on the Basic Statistical Returns of RBI, https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications



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The post liberalization and pre GFC phase (1993-2006) has been observed to be deteriorative for all the states in the unambiguous manner. The C-D ratios for all the states have gone down remarkably, the worst hit states are Bihar, Haryana, Assam, Kerala, Orissa and UP. Reforming the banking sector did not provide favourable credit policy of the Indian banks. Although the trends of the C-D ratios are in downward directions in the GFC phase (refer to Figure 1), the average values of the ratios are still larger than that of their pre GFC values.

The post GFC average values of the C-D ratios show mixed results in comparison to the GFC phase. The states showing improvements as well as recovery from the crisis phase are Delhi, AP, Haryana, Punjab, Kerala, Maharashtra and TN. All the remaining nine states still struggle to recover. The worst hit recession is observed for Assam, Karnataka and MP. Karnataka was well known for exporting information technology products to the United States and thus hit badly after the crisis.

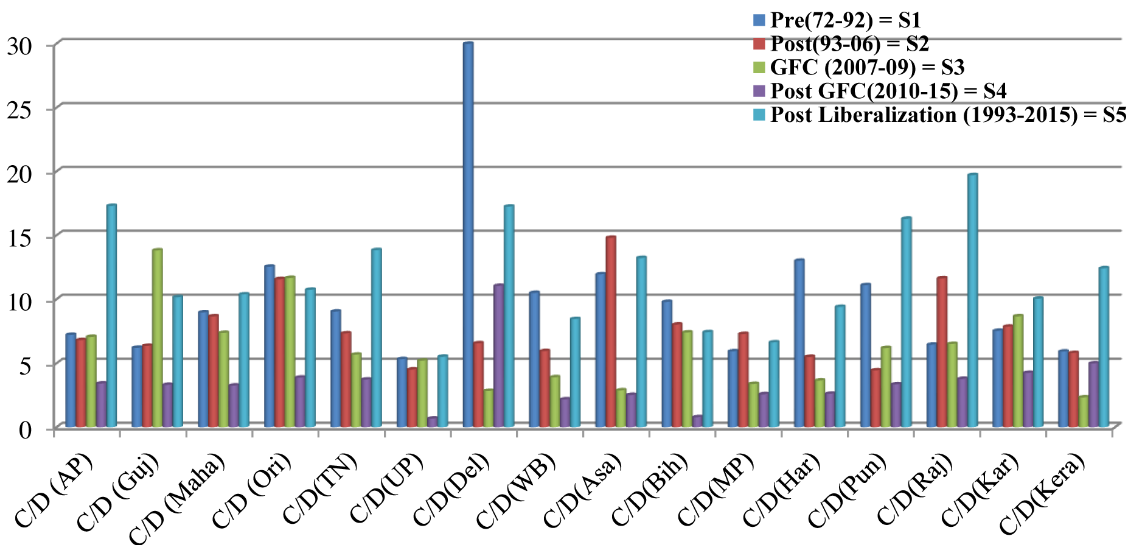
Let us compare the average values of C-D ratio of the entire phase of post liberalization (1993-2015) with that of the pre-liberalization phase. We observe that most of the states show greater margins of reductions in the C-D ratio and a few show greater margins of increase. The greater margin states are AP, Gujarat, Punjab, Rajasthan, Delhi, WB, TN and Maharashtra. The states showing greater reductions in the C-D ratio are Haryana, Assam, Orissa, Bihar, UP and Karnataka. Hence, the effort of financial sector's liberalization of the Indian economy did not produce satisfactory results at the state levels so far as the indicator of credit-deposit ratio is concerned.

Not only the average value of C-D ratio is the important measure for assessing the impacts of different phases of developments and crisis, the variations of the C-D ratio across the states for different phases should also be another important measure to be computed. The measure of variation has been captured by the values of standard deviations (SD) across the states. Larger values of SD means larger magnitudes of volatility and smaller values of SD means smaller magnitudes of volatility. We have computed average values of SD across the states for different phases and the results are depicted in Table 1 and Figure 3.

Figure 3. S. D of credit-deposit ratios in different phases

Note: The vertical axis measures the average SD of C-D ratio of states

Source: Sketched by the authors based on the Basic Statistical Returns of RBI, https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications



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We observe largest variations of the C-D ratios in the post liberalization period (1993-2015) in almost all the states compared to the other phases. Largest variations are observed for Rajasthan, AP, Delhi and Punjab during this period. Lowest variations are observed during the post GFC phase with UP and Bihar experiencing lowest magnitudes of volatilities. There are moderate degrees of variations during the GFC phase with Gujarat and Orissa holding the status of highly volatile states. There are also moderate degrees of volatility during the pre-reform phase with Delhi experiencing highest values of SD (which is equal to 29.98) followed by Haryana, Orissa and Assam.

Test Results of Mean Difference in Different Phases

The results of differences in the average values of the C-D ratios across the states do not justify the significance of the differences in statistical terms. We now analyze this part. We have tested the mean differences for pair of phases by means of Student's't' statistics on the basis of the statistic as given in the methodology section. The results of these tests are given in Table 2. We have four pairs of time phases to test. They are 1972-92 Vs 1993-2006 (pre globalization Vs post globalization and pre GFC phase), 1993-2006 Vs 2007-09 (pre globalization with GFC), 2007-09 Vs 2010-15 (GFC Vs post GFC) and 1972-92 Vs 1993-2015 (pre globalization Vs entire post globalization).

It is observed from the table that the estimated't' statistics for 1972-92 Vs 1993-2006 block take negative values which signify that the first decade of post liberalization phase produced fall in C-D

Table 2. Mean difference test results (Student's t statistics)

States	(1972-92 Vs. 1993-2006)	(1993-2006 Vs 2007-09)	(2007-09 Vs 2010-15)	(1972-92 Vs 1993-2015)
AP	-1.14	**5.40**	**2.83**	**2.48**
Gujarat	-1.51	2.04	-0.213	1.14
Maharashtra	-0.18	**2.31**	1.27	1.77
Orissa	**-5.44**	0.37	-1.74	**-6.72**
TN	-1.22	**5.82**	1.04	1.82
UP	**-6.56**	**2.94**	-0.84	**-4.63**
Delhi	-1.18	1.46	**5.39**	0.35
WB	-0.63	**4.95**	-1.32	1.26
Assam	**-4.55**	0.41	**-6.92**	**-6.50**
Bihar	**-5.26**	**2.12**	-1.63	**-5.04**
MP	**-2.20**	**3.82**	**-2.31**	-1.45
Haryana	**-10.93**	**3.32**	**2.73**	**-8.18**
Punjab	**-3.82**	**5.81**	**2.34**	0.47
Rajasthan	**-2.28**	**9.03**	-0.54	1.43
Karnataka	**-5.77**	**4.11**	**-3.74**	**-4.30**
Kerala	**-10.20**	**9.88**	**2.43**	**-3.80**

Note: (-) signs indicate that the mean of the second duration is lesser than that of the first duration and (+) signs indicate that the mean of the second duration is greater than that of the first duration. Bold figures indicate significant mean difference results at 5% level of significance.

Source: Sketched by the authors based on the Basic Statistical Returns of RBI, https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications

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ratios for all the states. But the fall in the values of the C-D ratios in terms of ‘t’ statistic are statistically significant for all the states except AP, Gujarat, Maharashtra, TN, Delhi and WB. Hence, the post reform banking system was not good for the states in overall sense.

The results for 1993-2006 Vs 2007-09 block show opposite results in terms of signs of the ‘t’ statistic. All the values of the test statistic are positive which means all the states’ C-D ratio have increased during the GFC phase compared to the first decade of post liberalization phase. Except Assam, Orissa, Delhi and Gujarat, all the states have improved significantly in the deposit utilization rate. It is, thus, inferred that the financial crisis has not affected the Indian states badly, instead improved the positions of the states in terms of the C-D ratio.

Let us compare the results of the GFC phase with the post GFC phase. Most of the states are stuck by post crisis recession, or the effect of the GFC spread to the Indian states in late. The exceptions are Delhi, AP, Haryana, Punjab and Kerala where the average C-D ratios have increased significantly during the post GFC phase. The worst hit state is Assam and Karnataka. Hence, the post GFC phase has been bad for most of the states.

Let us analyze the final phase-wise comparison which is pre liberalization vis-à-vis the entire post liberalization phase. It is observed from the results of the table that only Andhra Pradesh has improved its C-D ratio on an average during the post liberalization phase and it is possible mainly for very good performance during the GFC phase. All the remaining states have experienced significant fall or insignificant rise in the C-D ratio during the post liberalization phase. Thus, in overall sense, financial sector liberalization has not been good for the Indian states; the pre liberalization period was rather good for the states.

Test Results of Differences in Variances in Different Phases

Average values capture the insulated or smooth part of the trend values but within these smooth values there may be fluctuations or volatilities. Studying of volatility of a series is also an important part since it measures instability of the data that prohibits policy formulations. We have captured this volatility in the C-D ratio across the states by measures of variance as mentioned in the methodology part. We have applied the ‘F’ statistic to test for the ratios of average variances and compared the average variances over different phases. One tail tests have been carried out depending on whether $s_i > s_j$, $i \neq j$. Table 3 presents the results.

The results for the variance comparison between the pre reform phase and immediate post reform phase as is observed from the table that four states, namely, Delhi, Punjab, WB and Haryana, have relatively higher and significant variances in the C-D ratio compared to their post reform counter parts. All other remaining states do not produce any such significantly increasing variances in the pre reform phase. On the other hand, only Rajasthan is the state where the post reform average variance in the C-D ratio is greater than that of its pre reform phase. All the remaining states do not have either greater or lesser average variances in these two concerned periods.

Let us come to the results of the post liberalization (1993-2006) and GFC phase. Only four states in both the periods, Assam, Kerala and Delhi for 1993-2006 and Gujarat for 2007-09, have shown significant fluctuation in the C-D ratio and the remaining states do not show significant volatility in either of the periods. On the other hand, Bihar, UP, Gujarat and Delhi have significant fluctuations in the C-D ratio during the GFC and post GFC phases.

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Table 3. Test results for differences in variances of C-D ratio over periods (F Statistics)

States	1972-92 (= s1) Vs. 1993-2006 (= s2)		1993-2006 (= s2) Vs 2007-09 (= s3)		2007-09 (= s3) Vs 2010-15 (= s4)		1972-92 (= s1) Vs 1993-15 (= s5)	
	s1 > s2 df=(20,13)	s2 > s1 df=(13, 20)	s2 > s3 df=(13, 2)	s3 > s2 df=(2,13)	s3 > s4 df=(2,5)	s4 > s3 df=(5,2)	s1 > s5 df=(20,23)	s5 > s1 df=(23,20)
AP	1.10	0.90	0.66	1.51	5.32	0.18	**3.01**	0.33
Gujarat	0.94	1.06	0.15	**6.64**	**21.79**	0.04	**3.81**	0.26
Maharashtra	1.05	0.94	0.98	1.01	6.38	0.15	**7.76**	0.12
Orissa	1.16	0.86	0.70	1.43	11.30	0.09	**14.73**	0.06
TN	1.49	0.66	1.19	0.84	2.88	0.35	**5.92**	0.16
UP	1.37	0.72	0.53	1.87	**74.02**	0.01	**5.18**	0.19
Delhi	**20.57**	0.04	**3.82**	0.26	0.08	**12.19**	**52.38**	0.01
WB	**3.06**	0.32	1.64	0.60	4.00	0.25	1.06	0.07
Assam	0.64	1.56	**18.82**	0.05	1.62	0.61	**10.81**	0.09
Bihar	1.47	0.68	0.83	1.19	**110.15**	0.009	**12.96**	0.07
MP	0.65	1.53	3.28	0.30	2.16	0.46	**5.32**	0.18
Haryana	**2.52**	0.18	1.62	0.61	2.44	0.40	**18.08**	0.05
Punjab	**6.14**	0.16	0.37	2.72	4.25	0.24	**7.59**	0.13
Rajasthan	0.30	**3.31**	2.27	0.44	3.70	0.27	**2.11**	0.47
Karnataka	0.90	1.10	0.58	1.71	5.22	0.19	**5.66**	0.17
Kerala	1.02	0.97	**4.36**	0.23	0.27	3.64	**2.82**	0.35

Notes: 's_i' indicates the variance adjusted by number of observations. That means, $s_i = (n_i/n_i - 1).(S.D_i)^2$. The degrees of freedom for the numerator is $(n_i - 1)$ and for the denominator is $(n_j - 1)$. The bold figures represent significant results at 5% level of significance in a one tail test format with the respective degrees of freedoms (df).

Source: Computed by the authors based on the Basic Statistical Returns of RBI, https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications

The remarkable volatility is observed for all the states except WB during the pre liberalization phase vis-à-vis the entire post liberalization phase. The pre reform phase was with increasing C-D ration on the average but there were significant fluctuations as well. Hence, although most of the states' average C-D ratios were higher during the pre liberalization phase; their variations were also higher compared to the post liberalization phase. The global financial crisis has not hampered the C-D ratio of the Indian states in overall sense since the average values have increased but the volatilities were relatively low.

Rank of States in Terms of C-D Ratio

This is the final hypothesis in our study to discuss. The cross states equity in the conversion of bank deposits to bank credits has been captured to be analyzed by means of rank correlations among the states in different years. We have considered the years, 1972, 1992, 1993, 2006, 2007, 209, 2010 and 2015 to compare the rankings of the states in terms of C-D ratio. Table 4 presents the ranking of the states.

The top four states holding ranks of 1-5 most times for the given years are TN, AP, Karnataka and Maharashtra and the bottom four states holding ranks of 13-16 most times are Bihar, UP, Assam and Punjab. The remaining states hold the middle position of the ranks, 5-12. The states who have improved

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Table 4. State and phase-wise rank of credit-deposit ratio

Year/State	1972	1992	1993	2006	2007	2009	2010	2015
AP	5	2	2	3	3	2	2	2
Gujarat	10	9	11	7	5	9	9	8
Maharashtra	6	10	10	5	6	4	4	4
Orissa	8	5	4	6	7	13	13	14
TN	1	1	1	1	1	1	1	1
UP	14	14	14	15	15	15	14	13
Delhi	15	15	7	9	8	7	7	3
WB	9	12	12	12	9	11	11	11
Assam	3	4	3	14	14	14	16	15
Bihar	12	7	16	16	16	16	15	16
MP	13	16	8	11	13	12	12	12
Haryana	2	6	5	8	10	6	6	6
Punjab	16	13	15	13	11	8	8	7
Rajasthan	11	8	9	4	4	3	3	5
Karnataka	4	3	6	2	2	5	5	9
Kerala	7	11	13	10	12	10	10	10

Source: Computed by the authors using RBI's data on Banking Statistics

their rankings over time are Maharashtra, AP, Delhi and Rajasthan and the states in declining positions are Assam, Orissa and Bihar.

Whether the states' overall positions have improved or impaired from pre liberalization to post liberalization phase via GFC phase, we need to quantify it. Rank correlation coefficient for the pairs of years is the useful measure for that purpose. The formula and its statistical significance testing have been given in the methodology section. The results have been given in Figure 4.

We observe from the figure that the states' ranks have drastically changed, rather reversed, from the pre reform and early reform phase to end of the year of the study. The highest rank correlation of 0.93 is observed for the period 2010-2015 followed by the periods 2007-09 (the GFC phase), 1972-92 (the pre reform phase) and 1993-2006 (the post liberalization and pre GFC phase). All the values of rank correlation coefficients are also statistically significant. Therefore, we infer that there have been inequitable conversion rates of deposits into credits in the states from the pre liberalization phase to the post liberalization phase in overall sense, although the entire post reform phase up to the GFC and the pre reform phase have produced nearly equitable results in the C-D ratio.

CONCLUSION

In our attempt to study the differences in the average and variance, and equity in the distribution in the credit-deposit ratio across the India major states for the period 1972-2015, the derived results are in a position to conclude. The pre reform phase was with increasing credit-deposit ratio on the average but

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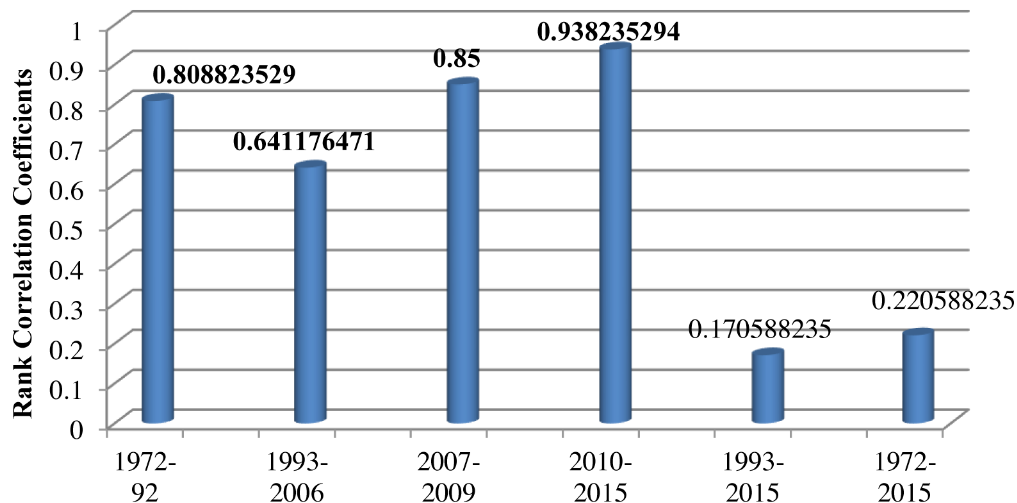
Figure 4. Rank correlation coefficients in different phases for credit-deposit ratio
Notes: The bold figures indicate significant correlation results at 5% level
Source: Sketched by the authors based on the Basic Statistical Returns of RBI, https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications



there were significant fluctuations as well. Hence, although most of the states' average credit-deposit ratios were higher during the pre globalization phase; their variations were also higher compared to the post globalization phase. The global financial crisis has not hampered the credit-deposit ratio of the Indian states in overall sense since the average values have increased but the volatilities were relatively low. Thus, in overall sense, financial sector liberalization has not been good for the Indian states; the pre globalization period was rather good for the states. And finally, there have been inequitable conversion rates of deposits into credits in the states from the pre globalization phase to the post globalization phase in overall sense, although the entire post reform phase up to the GFC and the pre reform phase have produced nearly equitable results in the C-D ratio. Hence, the Indian financial positions across the states were relatively good compared to the post globalization phase.

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KEY TERMS AND DEFINITIONS

Banking Reform: It is the reform of the Indian banking sector under the objectives of solving the chronic nonprofit earning problems and strengthening of the overall health of the public sector banks to face international competitions. It was done in line with the recommendations of the Narasimham Committee formed in this purpose.

Credit-Deposit Ratio: It is the amount of deposit or net liabilities used for giving loans/credits/advances to other sectors for productive purposes. It measures the capacity utilization by a bank or a banking system.

Global Financial Crisis: It is the worst economic crisis the world economy has experienced since the Great Depression of the 1920s. It out broke in the period of 2007-09 after the fall in Lehman Brothers in USA due to subprime lending crisis and it spread like flame all around the world, mostly to the developed nations, through the trade channels. The recessionary phase continued for many countries.

Liberalization: This is the policy of removing restrictions on international flow of goods and services. It was done in 1991-92 in India that included major structural reforms in all the sectors including the financial and banking sectors.

Mean: It is the average value of a set of observation. Suppose, a set of observation is 1, 2, 3, …, n, then mean or average value of the series 'X' is (1+2+3+…+n)/n. It is mostly accepted measure of central tendency in statistics as it fulfills maximum number of acceptability properties. The mean value of C-D ratio for a given year across the states is calculated by the summation of values of the C-D ratios across the 16 states and then divided it by the number, 16.

Rank Correlation: It is the degree of associations between two sets of observations where the observations are arranged in terms of ranks or gradations. It is thus the measure to capture the degree of associations among qualitative variables. The formula has been given in the methodology section.

Standard Deviation: To measure degree of variability in the data set, we measure degree of dispersion in statistics. Standard deviation is the widely accepted measure of dispersion. It is the square root of the mean squared deviations from mean. The square of standard deviation is known as variance and

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the ratio of standard deviation to the mean or median of the values is known as coefficient of variation. Usually, we prefer the set of observation which has lower degrees of variability to ensure the power of test and efficient statistical results.

States: They are the provinces demarcated by the constitution of India. There are 29 states in India out of which the selected sixteen states constitute major states comprising about 95% of the total GDP and bank credits.

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Chapter 14
Innovating Through Reflective Learning in Mindful Organizations:
Effects of Authentic Leadership

Elif Baykal
Istanbul Medipol University, Turkey

ABSTRACT

In the 21st century, being affected by the demanding business atmosphere and fierce competition among players, contemporary organizations have changed their priorities. The rivalry among ambitious organizations created knowledge-based economies that are possible through effective learning and high levels of organizational awareness. In this chapter, it is suggested that these requirements for effective learning and high awareness in companies address the need for mindful individuals and mindful organizations. And mindfulness in organizations are good for establishing meaningful ways to promote organizational learning and creates the baseline for more innovative work atmospheres. Furthermore, authentic leadership, most congruent leadership style for positive work atmospheres which is charachterized by authenticity, transparency, and high levels of awareness, has been presented as a suitable leadership style for mindful and innovative organizations. And moreover, it is proposed that under authentic leadership, mindful organizations will be succesful in benefting from reflective learning which will contribute to higher levels of innovativeness.

INTRODUCTION

Mindfulness can be described a state of mind that center attention and to bring awareness to the present moment (Stone, 2014). It is a receptive state of mind in which awareness of present experience ensured through attention (Niemiec et al. 2010). Having its roots in its roots in Eastern meditation traditions mindfulness can be accepted as an ancient spiritual construct that is alive for about two milennia (Brown et al., 2007). According to the belief system of Buddhists, mindfulness is a method of attentive thinking.

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Generally being mindful is accepted as being "here and now", namely experiencing the present fully (Herndon, 2008, p. 32). According to Buddhist approach mindfulness has "the characteristic of not wobbling, namely not floating away from the object. It hinders confusion and causes non-forgetfulness" (Bodhi, 2000). It is useful in keeping the mind steady like a stone rather than letting it move unconciously (Bodhi, 2000). Ellen Langer's (1989) approach to mindfulness is a good representative of Western approach to mindfulness. According to Langer mindfulness can be described as differentiating actively and refining existing differences, creating new discrete categories out of routines and adobting a more detailed understanding of the context. And Krieger (2005) define it as a psychological state wherein people prefer to adobt active data processing during performing their jobs. And with the aim of attaining their goals they actively analyze, categorize, and make distinctions regarding their data. In an other point of view, mindfulness is something related to remembering, namely it is about deliberately remembering a situation, event or object in the present, not from the past (Weick and Sutcliffe, 2006).

In mindfulness, we can talk about being receptive and open to present-moment (Bishop et al., 2004). High level of awaeness of the moment and concentrating fully on the present work and high levels of consciousness (Rosch, 2007; Kabat- Zinn, 2005) charachterizes mindfulness. Moreover, this state of mind involves the power to focus on the the current moment objectively and submissively (Baer, et. al. 2004). That is to say, it is about normalizing the present moment, not being preoccupied with past memories, obsessions, fantasies, too much future plans and excessive worries regarding the future (Baer et. al., 2004).In other words Mindfulness is significant for both quality and conservation of one's attention. It is a kind of enriched awareness that helps individuals or groups notice more about details, and gain the ability to notice and answer early signs of trouble (Rerup 2005).

Mindfulness is significant in counteracting undisciplined minds. According to Weick and Putnam (2006), a disciplined mind is a result of the perfect union of agility, awareness, mindfulness, and focused attention (Weick and Putnam, 2006: 277). In fact, mindfulness work together with concentration in order to control attention. This combination excludes mental hindrances and creates a calmer, more focused mind (Weick and Putnam, 2006). Mindfulness is a nonreactive and nonjudgmental awareness. When you are mindful, you do not pursue anything, you are in a state of mind without any agenda other than to be awake (Kabat-Zinn, 2002, p. 69).

Moreover, mindfulness, can also be described as the reversal of normalizing since it is about deciphering and pairing situations with routines. Infact, mindfulness weakens the inclination to simplify and strengthens the tendency to diversify. Thus, less-mindful practices are more inclined to normalize, where as more-mindful practices more inclined to anomalize. In this point, by the term anomalize it is meant that mindfulness creates the baseline for capturing unique details, differences, problems, discrepancies, and probable outliers that may slow down the processes (Weick and Sutcliffe, 2006).

Individual-level mindfulness is different from other kinds of attention-related constructs. To give an example, mindfulness resembles the concepts of absorption and flow in the point that each of them encompasses directing one's attention to present-moment actions. But, mindfulness is a bit different from these other two concepts since it encompasses wide attentional breadth—which is shaped by directing one's attention towards both external and internal events simultaneously (Sutcliffe and Vogus, 2016).

On the one hand, mindfulness creates many advantages for individuals. First of these advantages is equanimity, namely, calmness. Mindful individuals often experience evenness of temper especially in difficult situations (Kabat-Zinn, 2005), that is to say it reduces emotional reactivity (Baer, 2003). Moreover, people higher in dispositional mindfulness prone to be anxious less often (Krishnakumar and Robinson, 2015). They behave calmly and they do not panicky activity. Also it buffers too much

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reactivity to social problems and challenges (Niemiec et al., 2010) and it lowers sensitivity to criticizations (Leary et al., 2007). Moreover, mindfulness contributes to the reduction of negative emotions that decreases subjective well-being of people (Diener, Suh, Lucas, & Smith, 1999). And it undermines the inclination of engaging in agressive behaviour (Leary et. al. 2007). And equanimity that occurs as a result of mindfulness reduces individuals' emotional reactivity (Baer, 2003).

On the other hand, being mindless is described as being indifferent to the current moment and meaning categories affecting a specific event or situation (Langer, 1989). Generally, following the same routines for long time periods causes this insensitivity. Mindlessness aims to complete tasks in spite of warnings (Veil, 2011:126). In organizational settings, mindfulness addresses focusing on the process of each case and giving up previous obsessions regarding what the outcome ought to be (Veil, 2011:134). Mindfulness, necessiates being sensitive to the currrent situation. Namely, it is important to live in the here and now—and not to be obsessed with the past or future (Baer, Smith, ve Allen, 2004). In fact, through two processes mindlessness comes about: repetition and single exposure. When something is repeated over and over again, individuals start to rely on their own mind-sets in accomplishing their goals. And the second way is initial exposure to information. After exposure to a new information, if it is processed without questioning often mindlesness occurs. And incase new information is processed mindlessly, individuals make commitment to a single and limited way of approaching to it (Langer 2000)

According to, Jordan, Messner and Becker (2009) mindfulness lets questioning of expectations, information and risks. And moreover, Weick et. al. (2008) claims that mindfulness is more about the quality of attention than about the conservation of it. Namely, it is a high quality kind of attention that necessiates conceiving integratively, the time, the place and all relationships of the present moment. Moreover, mindfulness ensures high levels of awareness about discriminatory details. Mindless people experience problems with behaving attentive thus, they can not notice things out of the ordinary properly (Veil, 2011). This in turn contributes to the state of mind that can notice unexpected situations and early control of these situations.

Moreover, win the extant literature there are two main schools of regarding mindfulness. The first one is the stream that relies on Jon Kabat-Zinn's (1982) studies at the University of Massachusetts in the early 1980s, wherein he developed the famous mindfulness-based stress reduction program. He examined traditional Buddhist mindfulness aprroach and meditation and took off its religious aspects. His project gave way to hundreds of mindfulness studies in many other disciplines such as medicine, psychology, education and law. And these studies showed that individual level mindfulness can contribute to positive educational, psychological and medical effects. An other stream is created by the works of psychologist Ellen Langer (1989). He accepted mindfulness as proactive vigilance. Langer's (1989) definition of mindfulness is a bit different from classic Buddhist definition (Hunter and McMormick, 2008).

ORGANIZATIONAL MINDFULNESS

In fact, mindfulness can be either a collective or an individual property. But when we are talking about mindful organization, it is something more than the sum of individuals behaving mindfully (Hoy, 2003). On the organizational level, mindfulness is accepted to be the result of processes of mindful organizing. These mindful processes are estblished through Organizational learning, open communication, empowerment, continuous education and participative decision-making (Gartner, 2013).

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Collective mindfulness is a construct helpful in engaging in the organization of everyday processes that necessiate attention on details and comprehensive examination of specific contexts (Vogus & Sutcliffe 2012). Collective mindfulness was originally used in explaining behaviors of high-reliability organizations (HROs) wherein used for avoiding catastrophes and performing zero error operations. Later, the focus of organizational mindfullness has expanded to a wider range of organizations. Thus, encompassing all kind of organizations that give importance to what is going on around them and avoiding being in a state of 'auto-pilot'" (Ray et al. 2011: 188)

On organizations, mindful organizing is enabled via maintaining adaptability (Weick et al., 1999). That is why, mindful organizations are the kind of organizations that give importance to expertise and search for alternative perspectives in accomplishing tasks, sensitive in detecting failure, and have the ability and tendency to learn from mistakes (Barton and Sutcliffe, 2008). Mindfulness in organizations is often ensured via organizing the necessary constructs and processes that enables the recognition and use of expertise, thus establishing novel perspectives, detecting the potential points for failure, and learning from mistakes (Barton and Sutcliffe, 2008).

As mentioned before, organizational mindfulness involves figuring out and deciphering weak signals (Vaughan, 1986). Mindfulness emphasizes processes and it is about being not preconceived with the outcomes (Veil, 2011:134). Running processes smoothly is more important than being concerned about the results. Since, focusing on the present moment contributes to more sophisticated work outcomes. It is closely related to use of organization-wide rules, regulations and routines that effect mindfulness in both individual and group levels. That is why, mindfulness in interaction is a kind of relationship between individuals. It creates opportunities to question usual routines and future plans and creates high levels of awareness in the course of interaction among organization members. These routines are called 'interactive routines' due to the fact that they come about in dyadic relationships or among groups of people in organizations (Jordan, Mesnerr and Becker, 2009)

According to the extant literature, mindful organizations, have the ability to conceive the impossibility of calculating all possible problems in advance. With the aim of forecasting the unexpected, mindful organizations benefit from resilience which is the ability to understand and direct real-time unexpected situations adaptively and flexibly (Wildavsky 1991). Resilience is supported by two characteristics: The first one is commitment to resilience and the other one is deference to expertise. And mindless organizations often rely on distinctions created in the past, automatized behaviors and routines, and unsuccesfulness in transcending existing worldviews (Langer, 2000).

Literature on organizational mindfulness mostly focus on organizations at high-risk sectors such as nuclear powers and big industry giants that operate in complex systems. In these sectors, changes that are useful in solving problems in one part of the company may result in unexpected problems in an other part (Rerup and Levinthal, 2014). According to organizational literature mindfulness is about content rather than process. According to the extant literature it is an important factor that reduces stress (Davidson et. al., 2003), increas cohesion (Weick and Roberts, 1993), reduces number and frequency of accidents (Weick and Quinn, 1999), increase adaptability (Vogus & Welbourne, 2003) and contributes to creative solutions (Langer, 2005). In this point, Ray et. al., (2011), claims that organizational mindfulness is helpful in creating a resilient atmosphere by underlining what the organization hopes, admires, punishes, rewards, or supports.

In congruent with this point of view, Weick et. al. (1999) claims that organizational mindfulness is vital especially when organizations experience ugly surprises. These are the times organizations' environment poses them the most disturbing threats. These may be strategic threats such as new and more

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powerful rivals, new products, rapid changing customer expectations etc. or issues related to financial matter such as financial crises or bankruptcy or issues related to outer environment such as political crises or wars etc. or solely operational issues related to organizations' own interior processes (Vogus and sutcliffe, 2012).

In fact, mindfulness results from continuous management of routines, norms, regulations, fluctuations in cognitive representations, performance, and all other kinds of interactions (Rerup, 2004). In organizations, members are so accustomed to one way of reacting that they feel secure, relax and satisfied by the nominal achievements of their routines. When these routines can not achieve something, often these individuals' response is doing more of the same thing. And, when habits are formed, it is very difficult to change them particularly when these routines have been successful before (Hoy, Gage and Tartar, 2006). According to Turner and Rindova (2012) routines contribute to organizational mindfulness if they can act as general guidilines rather than bureaucratic procedures.

Moreover, we can talk about a suitable organizational climate that fosters mindful behaviors. In the extant literature, rigid bureaucracies are assumed to be improper for building mindful organizations. The standardization they cause results in mindlessness (Hoy, 2003). In order to adobt a mindful perspective, organization members require an atmosphere wherein they are not scared of making mistakes and they feel free to try novel things. An organizational climate of trust also prepares the baseline for a culture wherein individuals do not hesitate to break accustomed routines, willing to take risks. Withoutdoubt, altering existing routines is quiete difficult and costly, involving uncertainty to some degree that upsets extant capabilities (March 1994). However sometimes it can be advantegous as well, due to the fact that it makes organizations take the advantage of utilities linked to exploitation (Weick et al.,1999).

LEARNING

Mindfulness literature mostly focuses on how organizations can learn from ambiguous and imperfect stimuli. Mindfulness creates an enriched awareness by actively differentiating and refining existing categories and distinctions. Mindfulness builds up the opportunity to create novel discontinuous categories out of the continuous stream of categories. Mindfulness effectuate the opportunity to understand events and helps to make a more differentiated understanding of the current context and alternative ways to deal with this context (Weick, Sutcliffe and Obstfeld, 2005). Furthermore, mindful learning is quiete comprehensive. It includes being open to innovations, alertness to differences, sensitivity to various situations, implicit or explicit awareness of multiple perspectives, attention to current situation, awareness about past and orientation in the present (Langer 1997).

In mindful organizations, variation in activity is not a source of stability, in contrast it is a kind of sense maker. In mindful organizations, cognitive processes composes the cognitive routines that can be repeatedly used in different situations to detect and solve problems (Weick and Quinn, 1999). Continuous use of these routines increases the habit of questioning of existing information (Brauner and Becker 2006) that results in a continuous and sophisticated learning process. Furthermore, mindfulness is helpful in learning new information conveniently. Tactful learning resulting from mindfulness gives the opportunity, especially in difficult times to try novel things and develop new ideas. Similar to the term organizational reflection, the term mindfulness has been developed as an individual level concept, addressesing learning processes that involve high levels of awareness.

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In that point, Langer (2000) claims that when we have a faith that we are encountering something novel, we adobt a mindful approach. On the contrary, when we believe that we have a wide scope of knowledge about something we became more mindless. In fact, there is a magic power in uncertainty, making us think novel however most of us insistantly seek certainty hindering the chance to learn and attempt something novel (Langer, 2000). Regarding learning, mindfulness approach claims that learning is a never ending and proactive process (Rerup and Levinthal, 2014). This is due to the fact that, mindfulness necessiates both attentiveness to one's context and the ability to react to unexpected events from one's context (Levinthal and Rerup, 2006). Mindfulness requires thinking in real time, at the same time with the execution of a specific action (Levinthal and Rerup, 2006).

According to advocates of mindfulness in organizations, the organizational routines are not necessarily automatic and mindless all the time. Nonetheless, Bigley and Roberts (2001) claims that, sensitivity to possible signals through mindfulness can only be possible with the help of routinized processes of monitoring. That is to say, during routinized processes an organization may have the capability to protect its attention on the current situation if he has the enough level of awareness. In fact, to an important degree, for mindful individuals, cognitive processes in tha background encompasses patern recognition rather than computation. Of course certain linkages is possible. During mindfulness, encoded prior experiences constitutes the basis for linking of a certain stimulus to another (Narduzzo et al. 2000). That is why, mindfulness in action includes spontaneous and continuous recombination of knowledge earned from previous expertise and accustomed routines makes mindfulness in action possible. In fact, experiential learning that takes place prior to action, creates the necessary baseline for accumulating experience, and mindfulness in action brings together this experience and creativity (Miner et al. 2001). Since learning processes requires the aggregation of prior experiences and knowledge. Supporting this point of view, Weick and Sutcliffe (2001) claims that if organizations do not know what they should do with weak signals about dangers and previous expertise about problems, they will not have the chance to expand their insight and learning. When we compare mindful and less mindful organziations, less-mindful organizations emphasize the role of continuity in preserving accumulated experience, while the mindful ones give importance to novelty in responding to unique circumstances (Levinthal and Rerup, 2006). In other words, mindfulness is related to exploratory perspective regarding learning while mindless perspective is more related to exploitative perspective (Levinthal and Rerup, 2006).

REFLECTIVE LEARNING

The term reflection describes the intent to integrate the perspective gained from previous experience into existing knowledge or way of behaving that enables better choices or actions leading to additional knowledge or conceptual understanding. In other words, it is the act of engaging in comparison, taking into consideration the alternatives, adopting different approaches, and drawing inferences (Jordan, Messner and Becker, 2009). And according to Raper Hedberg's (2009) point of view, reflection is a cognitive process that encompasses contemplation speculation, musing and pondering and focusing on alternatives. In learning focused organizations, any reflection regarding the past experiences should be considered as incomplete if it did not encompass a reflection upon alternative ways to learn (Jordan, Messner and Becker, 2009).

When organizational dimension of reflection is taken into consideration, it can suggested reflection-in-action is quiete related to the phenomenon of mindfulness (Jordan, Messner and Becker, 2009). The

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term organizational reflection can be characterized as collective critical reflection of the total of organizational roles, business practices, processes, routines and all kinds of power relations (Vince, 2002). And a 'reflective culture' is the kind of culture that is tolerant to different voices and criticisms (Vince, 2002). Similarly, Raelin's (2001) claims that reflection turns into 'organizational reflection' as soon as entrenched group dynamics and established group norms and relationships come under public scrutiny. That is why, organizational reflection can be considered as the collective capacity of organizations to question existing norms, beliefs and assumptions. On the other hand, Korthagen (2005), defines 'reflective organizations' as the ones wherein members prefer to reflect systematically; namely, on a continuous and systematical manner. In paralell with all these definitions, Elkjaer (2004) claims that organizational reflection indicates 'reflective learning' backed up by organizational routines, habitual group practices and organizational cultures; that make professionals sense unexpected situations and react to them by way of inquiry. Simply, reflective learning is a deliberate process of cycles of inquiry. In this context the term 'cycle' denotes the ways a reflective learner goes between action and reflection (Ramsey, 2006). Thus, it would be meaningful to claim that reflective learning is deliberate and future focused (Ramsey, 2006). In reflective learning taking action will give way to doing things differently so that the reflective learner can reflect on what happened next (Ramsey, 2006). Growing awareness regarding the things going around is an important component of reflective learning (Ramsey, 2006). Reflective learner knows that things never happen in the same way again. That is why one should use his/her cognitive processes to affect future events and actions. That is why good reflective learning encompasses evaluation of events, taking action and trying out novel ideas and novel ways of acting.

On the one hand, attaining the level of collective mindfulness mostly depends on a high quality communication among organization members (Jordan, Messner and Becker, 2009). Moreover, Jordan, Messner and Becker, (2009) suggested a systematization including two different kinds of reflection encompassing reflection-on- action and reflection-in-action. And they clam that reflection in action can be seen in both individual and collective levels. They suggest that collective reflection-in-action includes applications and routines that increases mutual understanding, awareness regarding organizational facts and engaging more in organizational processes. The kind of activities that increases reflection in action is job rotation, coaching, mentoring, workshops etc. that increases mutual understanding in the organization. On the other hand, those practices that affect reflection on action is the kind of organizational routines that realize reflection-on-action and teaches how to reflect in a certain situation. Different from reflection in action practices reflection on action practices are those kind of practices that take place outside of, rather than within, ordinary ongoing operations. For example training sessions, strategy review meetings, routine meetings for sharing information, job simulations (Jordan, Messner and Becker, 2009).

Schön (1983) claims that when someone reflects-in-action, he/she turns into a kind of researcher in the context he/she is practicing. That is something different from knowing-in- action, namely, knowledge that he/she have gained from other similar situations that are not exactly appropariate for the current situation (Schön, 1983). And in order to overcome this, when using reflection the person reflecting decides what works best for that unique situation, rather than using existing knowledge. Mindfulness can be accepted as the prerequisite to reflection-in-action since it designates a state of mind that give way to organization members to reflect on their actions as they carry on their tasks (Jordan, Messner and Becker, 2009).

In fact, mindfulness can be considered as more significant during the occasions one choose to process and learn from various events at business life (Yagenah and Kolb, 2009). Learning style designates the ways people evaluate the possibilities of each novel experience, that in turn determines the range of choices people make (Yagenah and Kolb, 2009), thus efecting our level of innovativeness. For many people,

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the process that takes place while they are choosing their learning styles is an unconscious process, that encompasses deeply patterned routines and applied pervasively to all learning occasions. Mindfulness give the control to learner's hands (Yagenah and Kolb, 2009). In mindful experiential learning experiential learning becomes more satisfying as individuals become more intentional (Yagenah and Kolb, 2009). Mindful individuals think more intentionally and that makes them more creative organization members (Yagenah and Kolb, 2009). The intentionality in engaging in mindful learning turns it into a more deliberate process unlike being on auto-pilot. According to Yagenah and Kolb (2009), mindfulness is helpful in creating the necessary baseline for reflective learning in several ways. For example it is helpful in developing the capacity for experiencing. This necessiates fully opening oneself to direct experience. Moreover, during reflective learning, engagement in direct experience can be enhanced by being present, which is possible and convenient when the individual has the capacity to behave mindfully. On the other hand, mindfulness develops the capacity for reflecting through intentionally handling things from different perspective with empathy. Stilling and quieting the mind mindfulness fosters deep reflection. In order to adopt mindful reflective learning, individuals can detect critical occasions of impulsive action and gain the ability to plan suspending their action during these critical times through mindfulness (Yagenah and Kolb, 2009). Furthermore, mindfulness is also effective in developing the capacity for thinking. Working on theoretical model building and creating new scenarios for action enhaces the capacity to think with different percpectives. And this inclination to question makes the habit of thinking more intentional as opposed to processing on automatic mode. And through mindfulness, practise of focused and abstract questioning enhances the potential to increase mind's capability to use its full potental during learning thus contributing to a more developed capacity for action.

Acting on its own necessiates high levels of involvement in the practical realities and consequences of actions. In this point, mindfulness make the learner more proactive. This proactivity ensured by mindfulness assists the individual to be intentional about their actions, although reactive observation is a more comfortable state for the learner. Mindful individuals ask other people novel and meaningful questions which is a mindful way to start acting. However, mindfulness is not a matter of just moving, intentionally suspending the time to start acting can be a mindful act as well. If the mindful individual knows that it is not the proper time to react, he/she often prefers to postpone his/her actions for another time. To sum up, as Hargadon & Bechky (2006) claims, mindful interactions trigger moments of reflective action where people understands the difficulty of their current problems and reevaluate and share their prior experiences through which solutions to problems are brought about and elicit collective creativity is created. That is why in this paper we claim that mindfulness has the potential to positively effect both individuals' and organizations' innovativeness.

INNOVATION

According to Fichman (2004) mindfulness serves as an antecedent of high quality innovation. Similarly, Weick et. al. (2008) insists that organizational mindfulness contributes to resilience and willingness of individuals and encourage organizations to act on specific problems and hazards thus giving way to better problem solving capabilities and wider repertoire of action. In this point, Weick and Sutcliffe (2007) also claims that mindfulness is important for organizations since it gives them the ability to manage unexpected events by relying on: anticipation and resilience. Mindful organizations are succesful at recognizing problems and adversities in advance. With the aim of preventing the unexpected, mindful

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organizations resort to resilience. Thus, gaining the chance to deal with real-time unexpected problems in an adaptive and flexible manner (Levinthal and Rerup, 2006). Moreover, the tendency of mindful organizations to constantly scan for problems prevents prevents them from adoption of a false sense of organizational confidence (Hoy, Gage and Tarter, 2006).

With a mindful perspective to innovation Langer claims that "A mindful approach to any activity has three characteristics: the continuous recreation of categories and routines ; openness to alternatives and novel information; and an implicit awareness of and respect for different perspectives (Langer 1997). On the contrary, mindless practice tend to follow the rules strictly disregarding the context, originality of the situation, and the differences in abilities of different people (Elbanna and Murray, 2009). In this point, Elbanna and Murray (2009) claims that mindfulness increases the capacity to reach high levels of vigilance and sensitivity in organizational processes and needs which fostered business innovation and the delivery of a successful solution. Furthermore, mindful organizations are less likely to engage in useless and ineffectual innovations, and thus could, in some contexts, do more innovation. That is why, we suggest that in order to increase innovativeness engaging in mindfulness practice is a good alternative since it is a tool that can be used to increase awareness with a nonjudgmental presence (Solloway, 2001).

MINDFULNESS AND AUTHENTIC LEADERSHIP

Authentic leadership is described as a novel leadership style that are conceived by other shareholders in an organization as having high levels of awareness regarding themselves, and regarding their surroundings, and they are often known as being optimistic, hopeful, trusting, and positive (Avolio et al. 2004). Similarly, Luthans and Avolio (2003) describes authentic leadership as a leadership process that nourishes from psychological capacities of individuals and a highly developed positive work atmosphere, wherein self-awareness and self-regulated positive behaviors are prominent both for the leaders and followers. This self awareness and self regulated positive behaviour fosters mindfulness and positive self-development of individuals. The theory regarding authentic leadership underlines significance of regulations of self awareness in the relationship between leader-member exchanges in increasing psychological capacity of the organization and a positive organizational climate (Avolio ve Gardner, 2005). Withoutdoubt, this magic combination results in high levels of self-awareness giving birth to a cycle of more authentic and aware processes. In this context, self-awareness designates the act of demonstrating an understanding of how an individual derives meaning of the world and how that process effects the way the individual views himself over time. This process also increases understanding of individual's strengths and weaknesses and his own multifaceted nature of (Walumbwa, et al., 2008). Under authentic leadership, individuals are are deeply aware of their own and others' values, knowledges, moral perspectives and strengths (Avolio, et. al., 2004). Moreover, authentic leaders and the followers that are transformed by their leaders to authentic individuals, are often eager to share information with their followers and are more inclined to honestly express emotions and thoughts than other types of leadership, thereby providing more loyalty, identification and confidence to their employees (Avolio et al., 2004). Due to the fact that for building mindfulness, awareness of emotions, transperency and authenticity are very important factors, authentic leaders that regards awareness and authenticity as the foundational factors of their leadership behaviors (Gardner et al. 2005) can be regarded as proper kinds of leaders in building mindful organizations.

Similarly mostly mindful leaders contribute to positive work outcomes like efficiency, productivity, high levels of awareness and authenticity and greater well-being (Boyatzis et. al., 2005; Carroll et. al.,

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2008). According to leadership literature effective leadership is dependent on the quality of leader-member relationship, that is why mindfulness of the leader is very significant in improving social interactions and contributes to a more effective leadership (Reb, Narayanan and Chaturvedi, 2014). In the extant literature, mindfulness is often associated with better interpersonal relationships since it increases quality of emotional relationships (Wachs and Cordova 2007) and helps to cope with probable relationship stresses (Barnes et al. 2013). Mindfulness can be described by high quality relationships, since mindful people are capable of being fully in the "here and now" with other people (Reb, Narayanan and Chaturvedi, 2014). Anyway, in daily business life when leaders get in touch with their followers, followers can easily understand whether the leader is fully present in the context with their entire being (Reb, Narayanan and Chaturvedi, 2014). In fact, for a leader, being fully present in an interaction with his followers, can make him capable of better recognizing the needs of them, especially regarding the kind of support that they require. As a result, mindfulness let leaders engage in more effective leadership behaviors toward their subordinates (Reb, Narayanan and Chaturvedi, 2014).Anyway, related literature shows that mindfulness is closely related to high levels of emotional intelligence and selfregulation (Brown and Ryan 2003), thus results in a better recognition and understanding of both other people's and one's own emotions (Arch and Craske 2006).

Moreover, authentic leaders have three significant qualifications which are, self-regulation, self-awareness, and positive modelling (Cerne, et. al., 2013), which can all be accepted as significant factors that prepares the necessary baseline for innovativeness, creativity and entrepreneurship (Baykal, 2018). Having its roots in positive organizational studies, according to authentic leadership theory, authentic leaders increase positive inclinations of their followers by establishing a positive, moral and supportive work environment (Peterson et. al., 2012) that give way to more creative followers. Similarly, literature on creativity alreadyclaims that in a work team when the leader has high levels of self-confidence, the level of independency that team members feel is also considerably high and this high level independency perceptions give way to significant levels of organziational and individual creativity (Cerne, et. al. 2013).

CONCLUSION

In the 21st century innovation is one the most prominent driving force for competitiveness. And with-outdoubt leaders designate the limits and necessary organizational climate under which their employees can express creativity (Gelani, 2011). On the one hand, changing business habits, changing and rapily changing conditions necessiates a renewed focus on what makes genuine leadership styles as authentic leaderhip (Avolio and Gardner, 2005). In fact, the four main leadership dimensions of authentic leadership reinforce openness in organizations and contributes to creation of proper climate to try novel things, to share ideas and take risks which are necessary prerequisites for innovativeness. These four important dimensions are; self-awareness, namely leader's knowledge about his and others' strengths and insufficiencies (Walumbwa et. al., 2008), the second dimension balanced processing can be consideed as leader's capacity yo make objective analyzes and decisions (Gardner et al., 2005) and third dimension, relational transparency is leader's capacity to present true self to other people, namely, showing his true emotions, speaking openly. And the fourth dimension is internalized moral perspective, namely leaders' capability to set high level moral standards and having the intention to act congruently (Walumbwa et al., 2008).

On the one hand, as Heppner and Kernis (2007) claims, one of the most important benefits of mindfulness its ego quieting effect that is to say its positive effect on detaching one's feelings of self-worth

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from one's every day affairs. And they are convicted that mindful action is often not nourished by ego concerns, that is why it is more likely that mindful action will result in more integrated and authentic functioning that we can come accross most probably in authentic leaders in organizational contexts. Anyway, Heppner and Kernis's (2007) research showed that mindfulness and authenticity is interrelated. Similarly Baer and Lynkins (2011) also suggests that mindfulness contributes to enhancement of many positive psychological constructs including authenticity that can result in more creative individuals and work atmospheres thus contributing to more innovative individuals and groups.

Whether in individual or organizational level, the practice of mindfulness develops awareness and when necessary quietes the mind. In fact, quieting the mind through mindfulness helps individuals combat with unnecessary stress and anxiety, increases our power to focus on contexts, thus results in a proper baseline for innovativeness. A mindful leader is creative in the point that he is usually fearless of failure, and is willing to take calculated risks (Gehani, 2011). According to our point of view, the mindfully creative leaders, mostly authentic leaders, are often optimistic and driven by hope, since they give importance to self-fulfillment and self-actualization while developing their authentic core-competencies for the sake of benefits for their organization. They are connected to their inner self, and also they are good at connecting and collaborating with others. Mindful organizations attain their innovative goals through five main principles of mindful organizing and mindful leaders, most congruently authentic leader lead this process.

SOLUTIONS AND RECOMMENDATIONS

Although practices may change from organization to organization, mindful organizatons mostly have a sensitivity to tasks with high levels of awareness, a preoccupation with failure, a reluctance to simplify interpretations in any topic; reverence of expertise and a commitment to resilience (Wick and Sutcliffe, 2003). And we are convicted that reflective learning is a good method for raising collective attentiveness and responsiveness through the above mentioned five principles. Reflective practices foster the observation of the here and now and make individuals capable of getting a broad picture of the present that give way to constructing a richer picture of the future. Reflective practices help individuals and organizations align past experiences with future and contributes to getting a better picture. And a mindful leader act as a catalyzer in this process making the individual more aware of the facts and soothes excessive anxiety thus preaparing the necessary baseline for innovativeness.

FUTURE RESEARCH DIRECTIONS

In further studies, empirical study designs measuring effects of authentic leadership styles in the relationship between innovative behaviors of companies and use of reflective learning can be established. Moreover other kinds of leadership styles or learning styles can be included into the study design. Or the above mentioned study design can be compared with unmindful organizations. Also cross cultural comparisons can ben made with the aim of understanding differing approaches of various cultures to mindfulness and to authentic leadership and their inclinations to innovate can be examined.

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KEY TERMS AND DEFINITIONS

Authentic Leadership: It is an approach to leadership having its roots in positive psychology that emphasizes building the leader's legitimacy through honest relationships with organizational members.

Psychological Capacity: It is a second order construct encompassing individuals' hope, optimism, resilience, and self efficacy.

Reflective Learning: It is a kind of learnng practice encompassing stepping back from one's learning experience in order to develop critical thinking skills and progress on future performance via analyzing past experience.

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Section 3

Section 3

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Chapter 15
The Effects of Technology on Bank Performance in Advanced and Emerging Economies:
An Empirical Analysis

Necla Tunay
Marmara University, Turkey

Serhat Yüksel
Istanbul Medipol University, Turkey

K. Batu Tunay
Marmara University, Turkey

ABSTRACT

Electronic banking is a very popular aspect almost all over the world especially in the last few years. Banks make investment in this area in order to attract the attention of the customers. Therefore, it can be possible to survive in such a competitive environment. In the literature, it is also discussed that making investment into the technological aspects has an important contribution to the financial performance of the banks since it increases efficiency in banking operation. Similarly, in this chapter, the effects of electronic banking technologies on bank profitability and costs are investigated. The analyzes are performed with aggregated data from 23 developed and emerging economies covering the 2005-2015 period. The relationship between the electronic bank services and various performance and cost criteria such as ROE, cost to total income ratio, non-interest income, and overhead expenses to total assets ratio has been analyzed. The findings show that the increase in the use of electronic banking technologies has a positive impact on profitability and a negative impact on costs. Banks' investments in technological innovations improve both their productivity, product and service quality, and profitability performance. While considering the issues emphasized in this study, it can be recommended that banks should increase their investments for the technological improvement in order to have higher financial performance.

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INTRODUCTION

Globalization has many advantages for the countries in many different ways. For example, companies got a chance to make investment in new markets because of the disappearance of economic borders among the countries. In spite of this situation, it can also be said that globalization has an increasing effect on the competition due to the new entrants in the market. Hence, companies try to take actions in order to survive in such a competitive environment (Yıldırım, 2011; Yüksel, 2017). It can be mentioned that there are mainly two different ways so as to achieve this objective which are generating new product or service or presenting existing products in new and advanced form (Dinçer et al., 2018).

Banking sector is a good example in which there is an increase in the competition after the globalization (Ersin and Duran, 2017; Yüksel, 2016). It is accepted as one of the sectors where technological advances are closely watched and most commonly used. Like most financial markets, it is also difficult to develop new product and services in banking sector. For this reason, it is important to present existing products to customers in new forms. Hence, it is stated that technology-based electronic applications such as Internet banking, mobile banking, telephone banking, automated teller machines (ATM) and point of sale (POS) networks offer significant advantages while presenting existing products to customers. Customers can easily access virtually any type of banking product at a lower cost than the standard, 24 hours a day. In the process, the commitment to the branches can be reduced as much as possible. All these features encourage customers to receive electronic banking services (Akhisar et al., 2015; Ersin and Eti, 2017). Increasing demand for such services has led banks to shift a significant portion of their investments to this area. It is also obvious that this tendency is expected to continue in the future (Tunay and Yüksel, 2017).

Technological-based products provide significant advantages to the banks (Zhang et al., 2018). For instance, there can be cost advantages for the bank, profitability can be increased, and the risks can be minimized in comparison with the traditional banking products (Tunay et al., 2015; Zengin and Yüksel, 2016). In addition, studies have shown that the return times of investments by banks in this area are considerably shorter when there are enough customers to demand technology-based products. Findings of applied studies on various countries reveal that electronic banking services increase the performance of banks. However, as some underdeveloped and developing countries are not able to invest enough infrastructure, it is also seen that the expected results are not available because of the tendency of customers to traditional branch-based banking (Long et al., 2017; Yüksel et al., 2017).

There can be many different examples for the banking sector to present existing products to customers in new forms. Within this scope, ATM plays a very significant role because by improving operations that can be made in this machine, banks can provide higher customer satisfaction. For example, if customers can make most of their banking operations by using ATM, such as withdrawing money, paying bills and money transfer, it is obvious that these customers can prefer to work with these banks. In addition to ATM, there can be improvement in the products of the banks related to the internet banking. For instance, while making banking operations by using internet banking channel, the expectations of the customers can be satisfied much easily. As it can be understood that improving existing products gives a very significant advantage for the banks to increase their competitive power.

While considering these findings and evaluations, in this study, it is aimed to analyze the impacts of electronic banking applications on banking performance and the costs of the banks. For this purpose, 23 developed and emerging economies are taken into the consideration. In addition to this issue, system dynamic panel data models used in this study in order to achieve this objective. Moreover, annual data

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for the periods between 2005 and 2015 is evaluated in this study. With respect to the electronic banking, ATM, POS and card data is selected whereas return on equity and cost/income ratio variables are considered as indicators of the financial performance of the banks.

As a result of the analysis, it can be understood how electronic banking investment affects the financial performance of the banks for these countries. Therefore, it can be possible to present recommendations for these banks to increase their profitability. The most important difference of this study from the others is that the sample used in this analysis covers many different countries. Another important point is that since the majority of the countries studied have developed electronic banking infrastructure, it will be possible to more accurately observe the effects of the services offered on the bank's performance and cost. Thus, it is believed that this study makes an important contribution to the literature.

This study consists of 5 different sections. In this section, general introduction related to electronic banking applications is given. In addition to this issue, quantitative information about the banking sector in the world is shared in the second section. Moreover, similar studies in the literature are assessed in the third section and the missing part in the literature is underlined as a result of this analysis. Furthermore, in the fourth section, an econometric analysis is performed for developing and developed countries. Finally, in the last section, necessary recommendations are given based on the results of analysis.

QUANTITATIVE INFORMATION ABOUT BANKING SECTOR IN THE WORLD

General Information About Banking Sector

Banking sector plays a very key role in the economies of the countries by bringing together the fund demanders and fund suppliers. Thus, it is obvious that with the help of the banking sector, there is an increase in the investment amount of the countries. Similarly, this situation has a decreasing effect on the unemployment rate. In summary, it can be said that effective banking sector leads to economic development for the countries. Especially after the globalization, the importance of the banking sector increased very much. The ratio of domestic credit used by private sector as a percentage of GDP is demonstrated on Table 1.

It can be seen from Table 1 that there is an increase in the ratio of domestic credit which is given to private sector to the GDP amount regarding world level. It is defined that this ratio was 126.04% in 2007, but it went up to 128.99% in 2016. This situation is also similar in many different regions. As an example, there is an important increase in this ration for Arab world, East Asia and Pacific, Latin America and Caribbean and Middle East and North Africa. Despite this aspect, it is also determined that the ratio of domestic credit went down in Euro area for the periods between 2007 and 2016. It is seen that this ratio was 111.99% in 2007 whereas it decreased to 96.16% in 2016. The main reason behind this condition is the debt crisis which affected European countries negatively. In addition to the domestic credits, the information regarding the profitability of the banking sector is given on Table 2.

Table 2 includes some selected countries in the world regarding the return on equity of the banking sector. It can be easily understood from this table that there is a significant decrease in this ratio for these countries. For example, with respect to the world level, this ratio was 16.75 in 2005 while it decreased to 10.23 in 2015. The same situation can be observed in all countries demonstrated in Table 2. Another important point is that this ratio has negative values in some years, such as UK, Germany, Italy and Japan. It shows that there is an important decrease in the profitability of the banking sector in the world mainly due to high competition.

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Table 1. Domestic credit to private sector (% of GDP)

Regions	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Arab World	38.33	40.25	47.26	42.63	39.21	37.64	40.05	43.37	52.64	60.34
Central Europe and the Baltics	43.22	49.43	51.12	52.86	53.12	51.39	50.17	48.91	48.24	48.64
East Asia & Pacific	126.35	124.65	134.99	131.93	130.04	132.14	134.54	138.39	145.32	148.20
East Asia & Pacific (excluding high income)	93.94	91.51	110.47	111.75	110.40	116.36	122.33	128.59	140.33	143.43
East Asia & Pacific (IDA & IBRD countries)	93.94	91.51	110.47	111.75	110.40	116.36	122.33	128.59	140.33	143.43
Europe & Central Asia	104.40	106.98	110.33	106.47	102.56	100.27	97.73	95.43	95.16	94.53
European Union	111.99	115.57	117.28	114.41	110.94	108.83	104.69	99.84	97.42	96.16
IDA & IBRD total	56.17	57.64	68.13	68.98	69.98	75.94	79.13	84.66	94.22	96.94
IDA total	20.73	23.45	23.73	19.34	18.30	18.42	19.07	20.65	21.72	23.71
Latin America & Caribbean	33.07	35.40	37.55	40.14	43.77	50.18	48.53	50.84	49.80	49.53
Latin America & the Caribbean (IDA & IBRD countries)	32.91	35.27	37.40	40.07	43.71	50.15	48.51	50.83	49.78	49.51
Middle East & North Africa	43.12	44.49	50.49	47.59	45.03	43.51	44.17	47.62	56.56	63.64
Middle income	57.05	58.16	69.08	69.82	70.78	76.95	80.23	86.00	95.84	98.55
Sub-Saharan Africa	63.87	53.07	60.21	54.49	50.28	49.30	46.54	45.19	45.64	45.48
Sub-Saharan Africa (excluding high income)	63.91	53.09	60.25	54.51	50.30	49.32	46.57	45.21	45.66	45.50
World	126.04	120.32	126.32	121.23	116.12	118.10	120.31	122.16	126.18	128.99

Source: World Bank

Table 2. Banks' return on equity in selected countries

Countries	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
World	16.75	18.20	18.52	15.01	11.17	12.58	12.80	12.98	11.91	12.21	10.23
EU	13.73	16.28	15.71	5.63	3.41	4.65	2.19	5.36	6.91	7.33	6.87
US	12.74	12.49	8.59	1.44	1.35	5.95	7.29	8.80	9.39	9.07	9.26
UK	16.54	17.42	19.68	4.03	-1.55	-0.40	1.39	-5.79	1.93	6.27	3.53
Germany	10.85	10.27	16.29	-11.78	-4.48	2.33	0.89	4.17	3.70	3.72	-1.29
Italy	17.41	12.73	9.43	5.51	2.53	3.06	-11.34	-0.75	-14.85	-0.14	4.93
Canada	8.06	9.13	7.91	8.64	5.79	17.05	25.11	15.38	14.15	13.35	11.39
China	19.71	16.23	18.85	16.76	16.99	18.81	12.90	18.33	18.24	21.45	14.72
Japan	1.12	10.55	8.28	5.72	-3.31	5.13	6.23	5.56	5.74	6.00	6.03

Source: World Bank

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Quantitative Information About Electronic Banking

The popularity of electronic banking goes up at a significant level in the world. The main reason behind this situation is to increase customer satisfaction by providing a chance to the customers to make their banking operations at a more comfortable level. Table 3 gives information about the ATMs for different regions in the world.

Table 3 gives information that the number of ATMs in comparison with the population goes up very significantly. In 2008, the number of ATMs per 100,000 adults in the world level was 27.33. However, it can be seen that this number increased to 44.51 in 2016. In addition to this situation, it is also obvious that there is an increase in this number for many regions in the world, such as Arab World, East Asia and Pacific, Latin America and Caribbean, least developed countries and Middle East and North Africa. On the other hand, it is understood that there was a decrease in Euro area in 2016 although this number went up for the periods between 2008 and 2015. Similar to Euro area, it is also identified that this number reduced in 2016 for OECD member countries. In addition to ATM numbers, Table 4 explains the ratio of individuals who use internet banking in Euro area. In this table, individuals aged between 16 and 74 are taken into the consideration.

In Table 4, some selected European Union member countries are taken into the consideration. As it can be understood from this table that there is an important increase in the ratio of internet banking usage in Europe. With respect to the 28 European Union member countries, this ration was 25 in 2007 whereas it jumped to 51 in 2017. This situation is quite similar for all countries. Denmark, Netherlands and Sweden are the countries where the ration of individuals using internet banking is the highest. On the other side, it can be seen that this ration is lowest in Greece, Italy and Portugal. However, it is obvious that this ratio has an increasing trend for all countries in the periods between 2007 and 2017. While

Table 3. Automated Teller Machines (ATMs) (per 100,000 adults)

Country Name	2008	2009	2010	2011	2012	2013	2014	2015	2016
Arab World	13.61	16.10	19.61	18.93	20.29	23.65	24.82	25.18	27.44
East Asia & Pacific (excluding high income)	11.99	14.11	15.12	16.83	19.90	22.05	23.10	24.57	37.63
East Asia & Pacific	14.34	17.34	24.67	31.52	37.36	46.52	51.67	51.87	52.67
Europe & Central Asia	54.38	57.43	59.24	58.79	61.79	58.35	61.17	61.85	60.64
Euro area	89.50	88.69	90.29	88.28	84.74	85.05	92.41	93.55	69.97
Latin America & Caribbean (excluding high income)	26.57	26.93	28.48	30.00	31.22	33.40	34.38	37.30	38.01
Least developed countries: UN classification	1.56	1.79	2.49	3.02	3.63	4.49	4.47	4.75	4.75
Lower middle income	7.09	8.36	8.91	11.38	11.50	14.44	16.87	18.57	23.97
Middle East & North Africa (excluding high income)	9.08	10.98	11.85	12.79	14.22	21.48	22.98	23.39	26.91
OECD members	87.61	88.69	89.48	88.05	84.16	82.30	84.56	86.45	75.25
Sub-Saharan Africa (excluding high income)	2.54	3.24	3.20	3.71	4.23	4.70	5.32	6.07	5.64
Middle East & North Africa (IDA & IBRD countries)	6.32	7.51	8.44	9.01	10.10	23.14	24.47	24.42	27.12
World	27.33	27.86	29.15	30.17	33.28	36.29	36.45	40.25	44.51

Source: World Bank

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Table 4. The Ratio of individuals using internet banking in Euro region (individuals aged 16 to 74)

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
EU (28 countries)	25	29	32	36	36	40	42	44	46	49	51
Belgium	35	39	46	51	54	56	58	61	62	64	67
Czech Republic	12	14	18	23	30	34	41	46	48	51	57
Denmark	57	61	66	71	75	79	82	84	85	88	90
Germany	35	38	41	43	45	45	47	49	51	53	56
Greece	4	5	5	6	9	9	11	13	14	19	25
Spain	16	19	23	26	27	31	33	37	39	43	46
France	34	40	43	50	51	54	58	58	58	59	62
Italy	12	13	16	18	20	21	22	26	28	29	31
Netherlands	65	69	73	77	79	80	82	83	85	85	89
Austria	30	34	35	38	44	45	49	48	51	53	57
Portugal	12	14	17	19	22	25	23	25	28	29	31
Slovenia	19	21	24	29	31	28	32	32	34	35	39
Slovakia	15	24	26	33	34	40	39	41	37	45	51
Sweden	57	65	71	75	78	79	82	82	80	83	86
United Kingdom	32	38	45	45	47	52	54	57	58	64	68

Source: Eurostat

considering all information, it can be concluded that the size of the banking sector increases very much in the world. However, the profitability of this sector has a decreasing trend because of the competition. On the other side, it is also identified that the usage of electronic banking goes up significantly.

LITERATURE REVIEW

The importance of electronic banking products for banks is increasing day by day. In this circumstance, the most fundamental reasons are the relatively low risks in addition to the cost and yield advantages of such products. It can be said that there are a lot of studies on the effects of electronic banking products on the profitability performance of banks. In terms of the level of development of the countries they handle, these studies can be separated into three different groups.

Sullivan (2000), DeYoung (2001), Hasan (2002), Pigni et al. (2002), Kagan (2005), Arnaboldi and Claeys (2008), Ciciretti et al. (2009), Weigelt and Sarkar (2012) are some of the studies that focused on the effects of electronic banking and internet banking applications on bank performance in developed countries. In these studies, which made an analysis on US and European countries, it has been determined that electronic banking applications, which generally require advanced technology, has a significant contribution on the profitability of banks.

In particular, internet banking has been found to have significant positive influences on the bank's performance and to the development of competition in the banking sector. In particular, internet banking has been found to have significant positive contributions to the bank's performance and to the development of competition in the banking sector. Therefore, it is stated that internet banking practices

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strengthen banks' tendencies towards technological innovations (Arnaboldi and Claeys, 2008; Ciciretti et al., 2009). It has also been observed that technology-based bank products, and especially internet banking products, have reduced the operational risks of banks (Hasan, 2002; Ciciretti et al., 2009). In addition to these aspects, it can also be seen that internet banking practices increase the active quality of banks. Thus, it is obvious that internet banking usage directly increases operational profitability and ROA performance (Kagan, 2005).

Al-Samadi and Al-Wabal (2011), Khrawish and Al-Sa'di (2011), Sumra et al. (2011), Hosein (2013), Malhotra and Singh (2006, 2007, 2009) and Gutu (2014) focused on emerging countries such as India, Pakistan, Jordan and Romania. An important part of these studies concluded that electronic banking practices reduce the operational costs of banks and increase their performance based on profitability. Internet banking and other electronic banking activities have a very short process of the installation. This issue encourages electronic banking activities in developing countries. However, in order to increase the contribution of these services to the bank's performance, the expectations of the customers should be satisfied (Sumra et al., 2011).

In general, findings for developing countries are consistent with those obtained from developed countries. But the findings of Khrawish and Al-Sa'di (2011), Al-Samadi and Al-Wabal (2011) for the Jordanian banks, Hosein (2013) for Asian countries and Gutu (2014) for Romania reveal that electronic banking operations have a negative influence on the profitability of the banks. Al-Samadi and Al-Wabal (2011) found that the negative effect of electronic banking on Jordan's performance was driven by the fact that customers still depend on traditional distribution channels. Studies by Khrawish and Al-Sa'di (2011), Hosein (2013) and Gutu (2014) show that internet banking in developing countries is not sufficient in number of customers despite high infrastructure costs. Gutu (2014) has determined that this condition does not change even in banks that have high advertising budgets for internet banking. This shows us that in these countries, the customers are still demanding branch-based traditional bank services. Therefore, the expected cost reduction of electronic bank services cannot be achieved, and profitability is adversely affected.

In addition to these studies, it is also determined that the deficiencies in the electronic banking infrastructure in developing countries also prevent the expected cost effectiveness and higher profitability. It cannot be said that electronic banking activities have a strong impact on profitability, as branches in some developing countries have insufficient IT infrastructure and limited ATM networks. Similar to this condition, the same issue applies to internet banking activities as well. In emerging economies, relatively old technology-based internet infrastructure prevents achieving expected performance for the banks (Alam et al., 2007; Gutu 2014).

On the other hand, it has been observed that in some developing countries internet banking activities are mostly made in large banks (Malhotra and Singh, 2006, 2009). It is seen that large-scale banks, which have less expenditure on fixed assets, have a high volume of deposits, and have a low branch density, tend to internet banking applications. The main reason is that they generally aim to increase their low market share. The fact that the competitors start to operate internet banking also accelerates the direction of the banks towards this area (Malhotra and Singh, 2007).

In some African countries with a lower development level, it is observed that there has been much studies done recently on the effects of electronic banking activities on bank performance. Within this framework, the studies of Abaenewe et al. (2013) on Nigeria, Hassan et al. (2013), Oyewole et al. (2013), Okiro and Ndungu (2013), Aduda and Kingoo (2012), and Gakure and Ngumi (2013) on Kenya can be accepted ass the examples for this situation. Most of them have come to the conclusion that electronic banking activities in the countries they deal with increase the profitability in the banks.

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Internet banking has a major role in ensuring cost effectiveness at the basis of the positive effects on performance. The cost of a built-in transaction can be reduced by 40 to 80% when the same transaction is made on the website or ATM. Internet banking and other electronic bank services reduce the physical overhead expenses and average operational costs of banks (DeYoung, 2001). Banks that use electronic banking services intensively are described as "innovative". Their distribution channels are higher than the sector and their costs are below the sector average (Pigni, 2002).

In this circumstance, the importance of electronic infrastructure used by banks is great. As the used infrastructure develops, profitability rises when the cost per transaction goes down. However, it is stated that factors such as the level of education of the customer, the functionality of the bank's web site play a role in the success of internet banking services. For example, demand for internet banking services for high-educated customers is higher than for ordinary bank customers (Sullivan, 2000). If the number of bank customers using the internet and other electronic bank services cannot be increased, the profitability of such services will also be low for the banks.

Furthermore, some researches on customers who prefer electronic banking activities suggest that the use of such services has improved customer skills. On the other hand, it can also be said that the use of electronic bank services by the customers also affects the cost and income of banks. All banks in the sector cannot increase their profitability when they provide similar electronic based services and do not consider the mutual sales capacities. On the other hand, revenues are increasing as the banks lower their operational expenses when they provide complementary services to this area (Dubois et al. 2011; Brush et al., 2012).

It is also an important issue how technological innovations will increase the efficiency because companies use outsourcing in this process. Since the problems associated with the activity are highly complex, an optimal governance approach must be preferred. Some field works based on the survey methodology have shown that banks are increasing the efficiency when they outsource the activities for internet banking. However, it is also identified that the increase in technology level causes a trade-off between efficiency and adaptability. Banks must reflect technological developments in their services by taking into account of changing customer needs (Weigelt and Sarkar, 2012). It also takes time for customers to get used to new and more technological products. In this context, the design and presentation of products gain importance.

AN APPLICATION ON DEVELOPING AND DEVELOPED ECONOMIES

Structure of the Model and Analysis Method

In the study, the effects of the use of electronic banking technologies on the profitability of the banks and the overall costs is analyzed. In this context, the following variables are selected as dependent variables:

$$Y_{it} = \left(ROE_{it}, \left(Cost\ /\ Income\right)_{it}, NII_{it}, \left(OV\ /\ TA\right)_{it}\right)' \tag{1}$$

In equation (1), ROE_{it} represents return on equity, $(Cost/Income)_{it}$ gives information about the ratio of all costs to the income of the banks, NII_{it} represents non-interest income and $(OV/TA)_{it}$ represents the ratio of total expenditures to total assets. It is clear that by considering the variables related to the

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income and cost, it is aimed to measure the impact of electronic banking on the financial performance of the banks. The variable of NII_{it} is also included in this analysis because it is thought that technological improvement generally has an effect on non-interest income. Moreover, the independent variables used to describe the emphasized dependent variables can be expressed as:

$$X_{it} = ((ATM\ /\ Branch)_{it}, Cards_{it}, Pos_{it})' \tag{2}$$

In equation (2), the variable of $(ATM/Branch)_{it}$ refers to the ratio of automated teller machines to the bank branches. On the other side, $Cards_{it}$ gives information about the number of ATMs and credit cards that are offered to customers. Additionally, Pos_{it} represents the number of point of sales given to the retailers. Since these variables are based on electronics-based technologies, the assumption is that the increase in the number of years will go up the profitability of the banks and decrease their costs.

In our study, a two-step system dynamic panel data method was used as the analysis method. This method is based on the estimation (ABBB estimator) developed by Arellano and Bover (1995) and Blundell and Bond (1998). Because the two-stage system produces robust results compared to the one-stage alternative to the GMM estimator, it is often preferred in the studies. While the Arellano-Bond (1991) method produces prone results in such data sets, the system dynamic models give robust results by eliminating this trend problem. In order to make sure that consistent estimates are made with this method, it is necessary to prove that there are no second-order autocorrelation in the error terms and there is instrument validity. For this purpse, the Arellano-Bond test, which evaluates the hypothesis of absence of second-order sequential connection, and then Sargan or Hansen tests have to be applied to test the validity of the variables (Roodman, 2006, 2008). Diagnostic tests will be carried out with the mentioned tests in this study. The simplest form of dynamic models can be expressed as follows:

$$\begin{aligned} Y_{it} &= \alpha + \sum_{k=1}^{p} \delta_k Y_{it-k} + \beta X_{it} + u_{it} + \varepsilon_{it} \\ Z &= \left\{ Y_{it-1}, Y_{it-2}, \ldots, Y_{it-p}; \Delta Y_{it-1}, \Delta Y_{it-2}, \ldots, \Delta Y_{it-p}; X_{it}, D_{it} \right\} \end{aligned} \tag{3}$$

In dynamic models, the estimation process is based on one- or two-stage GMM estimators. In this respect, in dynamic models, there is also a set of variables represented by the matrix Z in equation (3). Vehicle variables can come from the delays of the dependent variable and the delay of the difference, from the explanatory variables and the dummy variables (D_{it}). In the forecasting process, the first difference of the model (8) is taken and an estimation of the equilibrium is generally made in the following structure:

$$\Delta Y_{it} = \alpha + \sum_{k=1}^{p} \delta_k \Delta Y_{it-k} + \beta \Delta X_{it} + \Delta u_{it} + \Delta \varepsilon_{it} \tag{4}$$

In equation (4), Y_{it} represents the dependent variable. On the other hand, X_{it} gives information about the independent variables and u_{it} refers to the time dependent effects that cannot be observed. In addition to them, ε shows error term and Δ states the first difference.

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Data Set

Electronic banking, bank cost and performance data of 23 countries is used in the study. The names of the countries included in the sample are presented in Annex Table 1. The data for the period 2005-2015 is annual and the total number of observations is 1771. The logarithms of all variables used in the study and reflecting electronic banking technologies are taken. On the other side, bank-based variables are included in the analysis without any conversion. The data set is unstable because observations on some countries are missing and/or logarithms cannot be calculated. The data of ATMs, POS machines and the number of cards printed is provided from Bank of International Settlements (BIS). In addition, the data related to the bank performance (ROE, cost, non-interest income and the number of branches) are taken from the websites of IMF and World Bank. Descriptive statistics on variables are presented in Table 5.

Analysis Results

At the first stage of analysis, the stationarity of the variables is investigated by the panel unit root tests of “t” developed by Levin, Lin and Chu (2002), “W” developed by Im, Pesaran and Shin and “ADF-Fisher” developed by Choi (2001). The results are presented in Table 6. As a result of these analysis, it is identified that the variables of ROE, ATM/Branch, OV/TA are stationary on their level values whereas other variables can become stationary after taking their first differences. However, since the system incorporates the first differences of all variables due to the structure of the dynamic panel data models, no conversion has been done before analysis.

In the second step of the analysis, the model expressed by equation (3) is estimated in two stages by ABBB estimator and the estimation results are presented in Table 7. For each variable in the vector of dependent variables (1), the model in (3) is estimated with the variables in the vector of independent variables (2). In some models, the coefficients that are statistically insignificant are eliminated from the analysis and the estimates are repeated. Thus, only meaningful predictions, which contain only significant coefficients, have been reached and are presented on the same table.

It is identified that all estimates have passed diagnostic tests. Another important point is that Wald tests show that the overall significance of the models is high. The results of the Sargan test, which tests

Table 5. Descriptive statistics of the variables

	ROE	Cost/Income	NII	OVC/TA	ATM/Branch	Cards	POS
Mean	10.8847	62.8930	34.9833	2.5861	4.0249	2.1080	2.3785
Median	11.9700	59.4800	33.4000	1.5800	3.2861	2.1639	2.7271
Maximum	31.6200	142.2600	92.2900	80.0000	16.4734	4.0368	4.3583
Minimum	-41.3100	27.5100	3.8600	0.2300	0.0000	0.0000	0.0000
Std. Dev.	9.3666	21.2945	17.2417	5.8673	3.2817	0.8086	1.1010
Skewness	-1.7152	1.4164	0.4699	10.6527	1.4229	-0.5564	-1.2071
Kurtosis	10.4135	5.5888	3.3082	130.8749	5.6855	3.9892	3.5276
Jarque-Bera	703.421	155.247	10.311	177162.400	161.391	23.367	64.371
Probability	0.000	0.000	0.006	0.000	0.000	0.000	0.000

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Table 6. Panel unit root tests

	ROE		Cost/Income		Δ(Cost/Income)		NII		Δ(NII)		OV/TA	
	Statistic	Prob.***	Statistic	Prob.***	Statistic	Prob.***	Statistic	Prob.***	Statistic	Prob.***	Statistic	Prob.***
Levin, Lin & Chu t*	-15.367	0.000	1.868	0.969	-14.714	0.000	0.445	0.672	-13.476	0.000	-15.854	0.000
Im, Pesaran and Shin W-stat**	-6.148	0.000	2.770	0.997	-6.995	0.000	1.460	0.928	-6.761	0.000	-4.872	0.000
ADF - Fisher Chi-square**	119.302	0.000	28.116	0.983	144.491	0.000	36.844	0.830	138.051	0.000	97.852	0.000
PP - Fisher Chi-square**	109.422	0.000	23.899	0.997	163.428	0.000	28.179	0.982	180.480	0.000	106.468	0.000
Lags	1		1		1		1		1		1	
	ATM/Branch		**Cards**		**Δ(Cards)**		**Pos**		**Δ(Pos)**			
	Statistic	**Prob.*** **	**Statistic**	**Prob.*** **	**Statistic**	**Prob.*** **	**Statistic**	**Prob.*** **	**Statistic**	**Prob.*** **		
Levin, Lin & Chu t*	-7.605	0.000	0.497	0.691	-232.986	0.000	-2.811	0.003	-97.308	0.000		
Im, Pesaran and Shin W-stat **	-3.582	0.000	-0.148	0.441	-41.959	0.000	1.957	0.975	-22.870	0.000		
ADF - Fisher Chi-square**	83.306	0.001	42.983	0.515	111.548	0.000	48.490	0.228	139.464	0.000		
PP - Fisher Chi-square**	59.129	0.093	88.020	0.000	128.002	0.000	63.017	0.020	147.527	0.000		
Lags	1		1		1		1		1			

*Null: Unit root (assumes common unit root process)

**Null: Unit root (assumes individual unit root process)

*** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

the validity of the vehicle variable set, indicate that the vehicle variable selection is correct in all models. Another factor in the validity of the models is that there should not be any autocorrelation problem. For this purpose, Arellano-Bond test is taken into the consideration. The obtained results show that the models other than the model $(OV/TA)_{it}$ satisfy this condition. It is identified that the residuals do not have any autocorrelation in both the first and second order, and that the GMM estimator is significant. However, the estimator is not significant in the model where $(OV/TA)_{it}$ is a dependent variable. Nevertheless, because the coefficients other than the constant give meaningful estimation results, it can be said that the result is appropriate to make interpretation.

Estimation results show that the profitability is influenced from the variable of $(ATM/Branch)_{it}$ positively. However, it is also identified that the variables of $Cards_{it}$ and POS_{it} have negative effects on the

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profitability. The positive impact of POS_{it} on the non-interest income gives information that electronics-based banking technologies have a positive effect on bank earnings but not on the profitability of each product due to high investment and operating costs. However, it is difficult to make a definite judgment because the effects of these variables on $(Cost/Income)_{it}$ are not clear.

On the other hand, the impacts of the variables of $(ATM/Branch)_{it}$, $Card_{it}$ and POS_{it} on $(OV/TA)_{it}$ are in consistency with the effects on profitability. It can be seen that $Card_{it}$ and POS_{it} have a positive influence on $(OV/TA)_{it}$, but the effect of $(ATM/Branch)_{it}$ on this variable is negative. These results show that ATMs reduce the overall costs of banks and increase their profitability. There may be a variety of reasons for this situation and there are a number of studies that ATMs reduce the high branch costs of banks in the literature. In this situation, it may be effective for customers to prefer to use cash instead of credit cards in their purchases and exchanges. However, the available data is not sufficient to test this hypothesis. In spite of the rapid spread of card usage, it is thought that in addition to the installation costs, new card printing, development (dissemination) of existing POS network and the costs caused by operating costs will reduce the profitability of these products.

Although each electronic banking product and service is not profitable enough, it can be said that they increase the efficiency of services and general bank performance. There are many studies supporting this view in the literature. It is considered that investment and operating costs should be reduced in order to reflect this performance in profitability according to the analysis results. Because it is unlikely that service revenues will increase in banking markets where competition and market share are fairly stable which do not change easily. Therefore, it is strongly recommended that banks that want to increase their profitability should reduce their main costs. However, reducing the costs is not an easy target for banks because fast-paced technology raises the costs of investing and maintaining such services.

Table 7. System dynamic panel data estimations

	roe		cost_inc				non_int_inc				ov_ta	
	Coef.	z Test	Coef.	z Test	Coef.	z Test	Coef.	z Test	Coef.	z Test	Coef.	z Test
yit-1	0.3342	18.100***	0.6624	44.600***	0.6699	69.130***	0.8689	81.380***	0.8707	84.950***	0.4680	728.430***
ATM/ Branch	0.5566	1.540*	0.4149	0.790			-0.1661	-0.260			-0.8457	-16.160***
Cards	-5.4291	-1.930**	-12.2790	-3.110***	-10.3853	-5.920***	4.9568	2.520**	5.6885	4.600***	2.3670	11.900***
Pos	-2.1452	-4.670***	4.5897	3.210***	4.8188	4.480***	-0.1196	-0.090			0.2149	3.000***
Cons.	20.9250	3.550***	36.1916	5.340***	33.0610	6.660***	-7.9081	-2.130**	-10.5330	-4.060***	-0.7319	-1.210
Arellano-Bond Tests												
AR(1)	-2.2466	0.0247	-2.9094	0.0036	-2.8957	0.0038	-3.6731	0.0002	-3.6851	0.0002	-1.0091	0.3129
AR(2)	-0.9849	0.3247	0.43873	0.6609	0.42425	0.6714	-1.5288	0.1263	-1.532	0.1255	-0.9975	0.3185
Sargan Tests												
Chi2	21.3518	1.000	21.7662	1.000	21.9027	1.000	19.4770	1.000	20.0822	1.000	17.7092	1.000
Wald Tests												
Chi2	743.61	0.000	12483.91	0.000	13413.12	0.000	16491.14	0.000	10149.69	0.000	10410.70	0.000

(***), (**), (*) show significant z tests at levels of 1%, 5% and 10%, respectively.

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SOLUTIONS AND RECOMMENDATIONS

It is identified that the usage of ATMs by the banks have an important contribution on the financial performance of these banks. In addition, it is also determined that bank cards and POS terminals have a positive effect on earnings but not profitability. While considering these aspects, it is strongly recommended that banks should give importance to the technological investments. However, it is also obvious that in this circumstance, excessive use of technology should be avoided by these banks in order not to have too much costs.

FUTURE RESEARCH DIRECTIONS

This study aims to analyze the effect of technology in the performance of the banks. For this purpose, electronic banking, bank cost and performance data of 23 countries for the periods between 2005 and 2015 is taken into the consideration. By focusing on important topic for the banking sector, it is believed that this study makes a contribution to the literature. On the other side, it is also thought that a new study, which considers some additional variables to the analysis, such as mobile banking usage, will also be beneficial. In addition to this situation, another study that covers more countries can also give appropriate results.

CONCLUSION

Banking is a closely watched business line of technological development and innovation. The main reasons for this issue are high competition due to the increasing financial globalization and consequently the decrease in the profit margins of the banks. Competitive pressures do not allow banks to change product and service prices and raise their incomes. The main options for banks that want to protect their profitability are to make their service processes more efficient and reduce their costs. In these environmental conditions, increasing the use of technology offers opportunities to increase the service quality and productivity and reduce the transaction costs for the banks.

Parallel to this aspect, in the study, the validity of this evaluation is investigated. Within this framework, the effects of electronic based technologies on bank performance and costs are examined experimentally in developed and emerging economies. In order to reach this objective, annual data for the period between 2005 and 2015 for 23 countries is analyzed. In addition to these conditions, the system dynamic panel data method is taken into the consideration in the analysis process. Regarding the electronic banking, ATM, POS and card data is selected whereas return on equity and cost/income ratio variables are considered as indicators of the financial performance of the banks.

The findings show that some technologies, such as ATMs used by banks, have a positive effect on earnings and negative impacts on the costs. This finding is very similar to the results of the many different studies in the literature. On the other hand, it is also determined that bank cards and POS terminals have a positive effect on earnings but not profitability. Despite the increase in card and POS terminals, the negative effects of these variables on profitability may depend on the height of the technological investments made, the dissemination of the service network and the high operating costs.

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In the light of these determinations, it is necessary to determine the optimum level of expenditure so that the use of technology can have effects that will increase the bank profits and productivity. However, it can also be said that under high competition conditions, banks should give importance to the technological investments. Under these circumstances, it is becoming difficult for technologically based services to have an expected positive effect on yields and earnings. In summary, the optimal use of technology in the service processes of the banks is having positive effects that increase productivity and profitability, but excessive use of technology will cause this effect to reverse.

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KEY TERMS AND DEFINITIONS

ATM: It means automated teller machine that is an electronic device by which customers can perform their banking operations without going to the branches.

BIS: Bank of International Settlements.

GDP: It is gross domestic product that includes consumption, private investment, government expenditure, and net export amount.

POS: It refers to the point of sale and it is a devise that provides to make trade to the customers by using their debit or credit card.

ROE: It refers to the return on equity which is calculated as the ratio of net profit to total capital.

Stationary Analysis: It aims to identify whether there is a unit root in the series or not.

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APPENDIX

Table 8. Countries in the sample

Australia	Mexico
Belgium	Netherlands
Brazil	Russia
Canada	Saudi Arabia
China	Singapore
France	South Africa
Germany	Sweden
Hong Kong SAR	Switzerland
India	Turkey
Italy	United Kingdom
Japan	United States
Korea	

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Chapter 16
Strategic Decision Making and Risk Management in the EU

Imre Sabahat Ersoy
Marmara University, Turkey

ABSTRACT

Innovative managerial thinking in global business economics necessitates the follow-up of the developments in the international regulatory framework of risk management for strategic decision making. The risk management framework which evolved from Basel I to Basel III (or with the December 2017 finalizations, the way the market calls it "Basel IV") in the world economies and Capital Requirements Directive (CRD) V and Capital Requirements Regulation (CRR) II in the European Union have been game changers. Global managers need to take strategic decisions in this new international risk management setting in order to succeed in the competitive global business environment. For effective capital management, risk function and finance function should come together. For effective implementation, this mix should be supported by establishing partnership among the risk, finance, and strategy groups.

INTRODUCTION

Basel Committee on Banking Supervision (BCBS) of Bank for International Settlements (BIS) headquartered in Basel is set up by G-10 Central Bank governors in 1974 for international supervisory and regulatory harmonization. Basel framework is not binding but forms the basis for rulemaking. The doubts about the health of international banks after the failure of Herstatt Bank coupled with the complaints about unfair competition led BCBS to develop Basel Capital Adequacy Accord (Basel I) in 1988. Basel I capital was insensitive to risk and was seen as part of financial reporting and away from strategic risk management. Basel I, which has been phased in by 1992, introduced risk weights for the G-10 internationally active banks. The simple and transparent Basel I which focused solely on credit risk is updated in 1996 to include market risk. The standard method for market risk was risk insensitive whereas the Value at Risk (VaR) model for market risk management became risk sensitive. Yet, as suggested by Ozdemir (2018) "In this period, the risk and finance functions worked largely independently and there

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was not much of an attempt to integrate and co-manage the entirely risk insensitive regulatory capital and the risk sensitive, but unproven and difficult to understand, economic capital."

BCBS started discussing Basel II in 1999 and finalized it in 2004. Basel II revised the credit risk framework, kept the market risk component as it is and introduced operational risk. Basel II within its three pillars structure relied heavily on self-regulation with internal models developed by banks; introduced the supervisory review process and disclosure requirements. Basel II compared to Basel I is much more complex and more risk sensitive. The required capital under the Internal Rating Based Approach (IRBA), particularly the Advanced IRBA became risk sensitive. But the risk function lacked the integration with the finance and strategy functions (Ozdemir, 2018).

Basel III, introduced in 2010 is the end result of the global financial crisis and has been implemented since 2013 and will be fully implemented by 2019. The crisis showed that banks had too little capital, too little liquidity but too much debt and not enough equity, that is to say too much leverage. Basel III increased both the minimum capital level and the quantity of capital to make sure that capital was loss absorbing in order to prevent bank runs. Basel III also included Liquidity requirements like Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). Basel III, with a view to enhance firmness of the financial structure targeted systemic risks in terms of macro-prudential measures, introduced leverage backstop, countercyclical capital buffer, and higher capital requirements to Systematically Important Institutions (SIIs). Basel III also extended disclosure necessities under pillar III to empower market discipline. The Capital Requirements Directive (CRD) IV and the Capital Requirements Regulation (CRR) which transposed Basel III into EU legislation entered into force on July 2013, applicable since January 1st 2014. The main result of Basel III was the decline in loans due to high credit and liquidity requirements.

The finalized Basel III- which is named Basel IV by the industry- introduces Capital Floors; recommends a new Standardised Approach (SA) to interest rate risk capital management; makes proposals for simplification of the Operational Risk, the revision of the SA and IRB Approach of Credit Risk, Market Risk with a fundamental review of the trading book (FRTB), Securitizations framework, and the SA for measuring counterparty credit risk exposures (SA-CCR). Basel IV also includes regulatory adjustments like the introduction of IFRS 9 accounting standards.

Capital Requirements Directives (CRDs) are parallel initiatives in the EU to the Basel Framework. On November 2016 the European Commission (EC) launched CRD V and CRRII. CRD V and CRR II will enter into force earliest by 2019. With CRR II the EC has translated global regulatory accords into EU law.

Starting with Basel III, the strategic risk management has evolved. "… The risk function's involvement in setting up the optimization framework and determining optimal risk strategies within this framework, subject to the organization's risk appetite constraints, takes the role from traditional risk compliance to strategic risk management, from being effective brakes to a co-pilot in determining corporate strategy." (Ozdemir, 2018)

The paper is motivated, to the best knowledge of the author, by the void of a through analysis of the CRD V and CRRII with its affects within the overall Basel framework in the literature. The rest of the chapter is organized as follows: Section 2 reviews the Basel I, Basel II and the initial plus the finalized Basel III frameworks. Section 3 examines particularly the implementation phases of CRD V and CRR II. Section 4 scrutinizes the possible impacts of CRD V/ CRR II on EU banks. Finally, section 5 concludes.

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REVIEW OF THE BASEL FRAMEWORKS: FROM BASEL I TO THE FINALISED BASEL III (BASEL IV)

A quick overview of the Basel frameworks will be essential for the better understanding of the risk governance structure in the EU.

Basel I

Basel I assigned capital loading first for credit risk and then due to the developments in the derivatives markets, for market risk. Table 1 demonstrates the capital charges of Basel I.

Total Capital is composed of Tier 1 and Tier 2 Capital as can be seen in detail at Table 2.

Risk weights for the capital adequacy calculations are different for each asset class as shown at Table 3.

Table 1. Capital adequacy calculation of Basel 1

$$\frac{\text{Total Capital}}{\text{Credit Risk + Market Risk}} > 8\%$$

Source: Ersoy (2003)

Table 2. Definition and composition of regulatory capital

Capital Measure	Components	Recommended Ratio
Tier 1	Paid-up capital (common stock) and disclosed reserves	At least 4%
Tier 2	Undisclosed, revaluation, and general loan-loss reserves; subordinated debt; and hybrid debt instruments	Limited to 100% of tier 1 capital
Total Capital	Tier 1 plus Tier 2 (where tier 1 can range from 50% to 100% of the total)	At least 8% of which at least 4% is Tier 1 capital

Source: Lindgren, Garcia and Saal (1996)

Table 3. Risk weights of assets

Assets Included	Risk Category	Risk Weight (percent)
Cash and loans to Central Banks and Governments	1	0
Claims on public sector entities	2	10
Claims on OECD banks	3	20
Loans secured by mortgages on residential property	4	50
All other assets including commercial loans	5	100
Each off-balance sheet item is scaled by a conversion factor	6	Applicable weight

Source: Lindgren, Garcia and Saal (1996)

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Table 4 depicts the options provided by Basel I for the calculation of capital adequacy. As can be seen from the table there is only SA for credit risk; whereas there are Standard and VaR based Internal Models Approaches for the market risk.[1]

Market risk is caused by the market price changes of the trading portfolios. The main drawback of Basel I, despite the later inclusion of the market risk was the fact that its main focus was only the credit risk, no risk sensitivity, OECD-country privileges, no recognition of the maturity of the credit exposure and the portfolio diversification.

Basel II

Basel II stands on three mutually reinforcing columns. The first column is the Capital Requirements one, the second one is the Supervisory Review and the third one is the Market Discipline. As will be seen shortly, the finalized version of Basel III (Basel IV) contains simplifications of the Basel II framework. This is why it is important to understand Basel II.

The description and composition of minimum capital stayed the same under Basel II but the Capital Adequacy Calculation has changed as can be seen from Table 5.

Basel II offers menu of approaches for the calculation of risks as shown in Table 6. The choices for Credit risk will be first evaluated here and then the options for market risk and operational risk will be shortly revisited.

Table 4. Options for the calculation of capital adequacy

Risk	Choice	Calculation Method
Credit	No choice	Standard Approach
Market	Simple	Standard Approach
Market	Advanced	Internal Models Approach (VaR)

Source: Ersoy (2003)

Table 5. Capital adequacy calculation of Basel II

$$\frac{\text{Total Capital}}{\text{Credit Risk + Market Risk + Operational Risk}} \geq 8\%$$

Source: Ersoy (2003)

Table 6. Options for the calculation of risks in Basel II

Choice	Credit Risk	Market Risk	Operational Risk
Simple	SA	Standard Approach	Basic Indicator
Intermediate	Foundation IRBA		Standardized
Advanced	Advanced IRBA	Internal Models Approach (VaR)	Internal (Advanced) Measurement and also Alternative Standardized Approach (ASA)

Source: Ersoy (2003)

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The SA of Basel II for credit risk assigns risk weights to sovereigns, banks and firms according to the external credit assessment of eligible External Credit Assessment Institutions (ECAIs) or Export Credit Agencies (ECAs) as illustrated in table 7.

The IRB approach for credit risk empowers banks to use their own internal risk assessment methods to calculate their own regulatory capital charges. Foundation and Advanced IRB Approaches reward low risk portfolios with a lower capital requirement. In the IRB Approaches the regulatory risk weights are originated from the risk factors of Probability of Default (PD), Loss Given Default (LGD), Exposure at Default (EAD) and in some cases Maturity (M). The data input methods of the IRB approaches are summarized in Table 8.

The regulation of Market Risk computation necessitates banks to reserve capital for the loss threat of trading portfolios. The SA to Market Risk uses Gap Analysis for interest related instruments and Scenario Analysis for Option books. The Internal Models based approach is largely based on VaR models. VaR can be measured by Variance-Covariance Methods, Nonparametric Models, Monte Carlo Simulation Methods, Extreme Value Theory.

The operational risk regulatory charge is 15% of current minimum regulatory capital. The Basic Indicator Approach to Operational risk relates the capital charge to bank's overall risk exposure proxied with a single indicator and charges a fixed percentage of a bank's gross income (alpha factor). In the SA, bank's actions are shared into standardized business lines, standardized broad indicators and standardized loss factors per business line. For each business line (like investment banking, banking etc.), the capital charge is calculated by multiplying the indicators (like gross income, annual average assets, total funds under management etc.) by a fixed percentage (beta factor). The total capital charge is then derived by summing all the capital charges for each different business line. In the Internal (Advanced) Measurement Approach (AMA), banks collect data for an operational risk exposure indicator and the

Table 7. Risk Weights under the standardized approach for credit risk

Credit Rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Under B-	Unrated
Sovereign Risk Weight	0%	20%	50%	100%	150%	100%
Bank Risk Weight	20%	50%	50%	100%	150%	50%
Bank risk weight to short-term claims	20%	20%	20%	50%	150%	20%
Firm risk weight	20%	50%	100%	150%	150%	100%

Source: Derived from BCBS (2001)

Table 8. Data inputs of the foundation and advanced IRB approaches for credit risk

Data Input	Foundation IRB	Advanced IRB
PD	Provided by banks based on own estimates	Provided by banks based on own estimates
LGD	Supervisory values set by the Committee	Provided by banks based on own estimates
EAD	Supervisory values set by the Committee	Provided by banks based on own estimates
M	Supervisory values set by the Committee or at national discretion provided by bank, based on own estimate.	Provided by banks based on own estimates.

Source: BCBS (2003)

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capital charge is computed by employing a fixed percentage (gamma factor) to the data collected. The Alternative Standardized Approach (ASA) bases capital requirements for operational risk on a measure of business size rather than revenue.

The main drawbacks of Basel II were the ignorance of systemic risk and excessive debt provisions. In Basel II strategic risk management was not much in the agenda as only a very small number of big banks used IRB approaches, especially the advanced IRB to decrease the amount of capital needed by the bank.

Basel III

The first phase of Basel III is introduced in 2009, is finalized in 2011 and started to be implemented since 2013 (1st of January 2014). Basel III is a reaction to the crisis. Basel III presents new capital and liquidity norms to strengthen the three pillar structure of Basel II. The capital requirements of banks are strengthened with Basel III by increasing capital and liquidity and decreasing leverage. Basel III, was an extension to Basel I and Basel II but Basel III did not replace Basel II (BDDK, 2010). Basel III is first introduced under the name Basel 2.5 which included higher capital requirements for securitization and market risk as well as higher disclosure and risk management standards.

Basel III introduced stricter capital requirements, stricter capital buffers, revised definition of capital, leverage ratio, liquidity requirements (liquidity coverage ratio –LCR- and net stable funding ratio –NSFR-). Hence, Basel III increased the amount and quality of regulatory capital and liquidity. In terms of capital, Basel III requires that by 2019 Capital Conservation Buffer will be 2.5%, Minimum Common Equity Capital Ratio, will be improved to to 4.5% and minimum Tier 1 capital will be raised to 6%. On the other hand, Liquidity Coverage Ratio will be 100% by 2019.

The main criticism against Basel III concern particularly the complexity of the Basel III framework, internal model approaches as some banks played with their estimates to reduce capital charges for market and credit risks which caused problems of comparability between banks; its inadequacy to capture interest rate risk of the non-trading portfolios; disclosure requirements of especially banks' internal risk models. On the other hand, compliance with Basel III required banks to be faced with extra costs of recapitalization and risk management improvements, causing a decline in credit availability (Amorello, 2016). The small banks are envisaged to suffer from the capital and liquidity requirements of Basel III. Regulatory arbitrage may be another outcome of Basel III.

The Finalized Basel III or the So-Called "Basel IV"

The Basel proposals after Basel III are referred to as Basel IV by the market and are finalized on 7 December 2017. The Basel III reforms of December 2017 complement the Basel III reforms of 2010. The BCBS proposes that the Basel IV framework starts on January 1, 2022 with full implementation on January 1, 2027. Basel IV reduces the flexibility given to banks to calculate their own risk rules and also increases simplicity, risk sensitivity and comparability of capital ratios. Basel III was a revision and extension of the numerator of the capital adequacy measurement ratio of the Basel framework as it mainly focused on the quantity and quality of capital. However, Basel IV is a revision and extension of mainly Basel II as it primarily emphasizes on the denominator of the capital adequacy measurement ratio with its new rules concerning the credit, market and operational risks (KPMG, 2016). Table 9 and Table 10 summarize the changes brought to the risk management framework.

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After table 9 which takes into account all Basel III changes, Table 10 concentrates only on the changes of the risk management framework brought by the finalized version of Basel III or in other words Basel IV.

After table 10 which also indicates the legal origins of the Basel IV framework, the reforms will now be analyzed in depth.

Output Floor

The new output floor framework based on standardized approaches complements the leverage ratio of Basel III. The main aim behind the idea of output floor is to ensure that the capital of the banking system does not drop beneath a definite level, mitigate the risks of IRB approaches in the calculation of capital and to increase comparability in the banking industry. The revised output floors will be built on

Table 9. Basel committee on banking supervision reforms-Basel III

Capital					Liquidity
	Pillar 1		Pillar 2	Pillar 3	
Capital	**Risk Coverage**	**Containing Leverage**	**Risk management and supervision**	**Market discipline**	**Global Liquidity and supervisory monitoring**
Quality and level of capital **. Raising minimum common equity** to 4.5% of risk-weighted assets, after deductions. **. A capital conservation buffer** Comprising common equity of 2.5% of risk-weighted assets, brings the total common equity standards to 7%. Constraint on a bank's discretionary distributions will be imposed when banks fall into the buffer range. **. Countercyclical buffer** within a range of 0-2.5% comprising common equity will apply, when credit growth is judged to result in an unacceptable build up of systemic risk. ***Capital absorption at the point of non-viability*** Allowing capital instruments to be written off or converted to common shares if the bank is judged to be non-viable. This will reduce moral hazard by increasing the private sector's contribution to resolving future banking crises.	***Revisions to the standardized approaches (SA)*** for calculating **. credit risk** **. market risk** **. credit valuation adjustment risk** and **. operational risk** mean greater risk sensitivity and comparability. ***Constraints on using internal model*** aim to reduce unwarranted variability in banks' calculations of risk-weighted assets. ***Counterparty credit risk*** More stringent requirements for measuring exposure, capital incentives to use central counterparties for derivatives; a new standardized approach; and higher capital for inter-financial sector exposures. ***Securitizations*** Reducing reliance on external ratings, simplifying and limiting the number of approaches for calculating capital charges and increasing requirements for riskier exposures. ***Capital requirements for exposures to central counterparties (CCPs) and equity investments in funds*** to ensure adequate capitalization and support a resilient financial system. ***A revised output floor*** based on Basel III SA limits the regulatory capital benefits that a bank using internal models can derive relative to the SA.	A non-risk based ***leverage ratio*** that includes off-balance sheet exposures is meant to serve as a backstop to the risk based capital requirement. It also helps contain system wide build up of leverage	***Supplemental Pillar 2 Requirements*** address firm-wide governance and risk management including the risk of off-balance sheet exposures and securitization activities; sound compensation practices; valuation practices; stress testing; corporate governance and supervisory colleges. ***Interest rate risk in the banking book (IRRBB)*** Extensive guidance on expectations for a bank's IRRBB management process: enhanced disclosure requirements; stricter threshold for identifying outlier banks; updated SA.	***Revised Pillar 3 Disclosures Requirements*** Consolidated and enhanced framework, covering all the reforms to the Basel framework. Introduces a dashboard of banks' key prudential metrics.	The **Liquidity Convergence Ratio** (LCR) will require banks to have sufficient high-quality liquid assets to withstand a 30- day stressed funding scenario that is specified by supervisors. The longer-term structural **Net Stable Funding Ratio (NSFR)** is designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding. The Committee's 2008 guidance ***Principles for Sound Liquidity Risk Management and Supervision*** takes account of lessons learned during the crisis. It is based on a fundamental review of sound practices for managing liquidity risk in banking organizations. ***Supervisory monitoring*** The liquidity framework includes a common set of intraday and longer term monitoring metrics to assist supervisors in identifying and analyzing liquidity risk trends at both the bank and system-wide level. Large exposures Large exposures regime established to mitigate systemic risks arising from interlinkages across financial institutions and concentrated exposures.
SIBs: The Committee identifies G-SIBs using a methodology that includes both quantitative indicators and qualitative elements. In addition to meeting the Basel III risk based capital and leverage ratio requirements. G-SIBs must have higher loss absorbency capacity to reflect the greater risks that they pose to the financial system. The Committee also developed principles on the assessment methodology and the higher loss absorbency requirement for domestic SIBs.					

Source: Basel Committee for Banking Supervision-Basel III https://www.bis.org/bcbs/basel3/b3_bank_sup_reforms.pdf

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Table 10. Basel IV framework

Capital Requirements	Credit Risk	Securitization	Counterparty Credit Risk (CCR)	Market Risk	Operational Risk	Credit Valuation Adjustment Risk (CVA)	Others
Capital floor (BCBS 306) and Interest rate risk in the banking book (BCBS 319)	SA (BCBS 347) and IRBA (BCBS 362)	Revision to the Securitization framework (BCBS 303)	SA CCR (BCBS 279)	Fundamental review of the Trading Book (FRTB) (BCBS 352)	Standardized measurement approach for Operational risk (BCBS 355)	Review of CVA risk framework. (BCBS 325)	Step-in Risk (BCBS 349) Disclosure (BCBS 309) Large Exposures (BCBS 283)

Source: GLC (2017) and PwC (2018)

the modified SA for credit, market, operational, securitization and CVA risks. The output floor based on the new SA will start to be implemented by 2022 and be 72.5% gradually in 2027. It means that banks' total assets weighted for risk with the internal models based approaches may not be less than 72,5% of the amount calculated by the SA.

Credit Risk: SA and IRBA

Credit Risk SA (CRSA) will be utilized to quantify the bank's capital requirements. Even if the banks use IRBA, they are expected also to calculate CRSA for the determination of output floor.

The revised SA reintroduces external credit rating to bank and corporate exposures. Sovereigns, central banks and public sector bodies are out of the coverage of this proposal. Revised SA includes revised risk weights and also due diligence requirements. As far as IRBA is concerned, the scope of application is limited. This change will better capture risks as banks calculate different levels of RWA for the very same level of risk and improve the comparability among banks. For some credit portfolios, constrains on the use of IRBAs are introduced. Advanced IRBA is removed for financial institutions and large corporations. The second measure to reduce RWA variability is the introduction of minimum input floor values for bank estimated risk parameters.

Leverage Ratio Buffer for G-SIBs

To limit leverage build-up, the Tier 1 capital of the bank should be at least 3% of the bank's on and off-balance sheet exposures consistent with the first part of Basel III in 2010. In order to finalize Basel III on December 2017, the leverage ratio buffer is set at 50% of the G-SIB's risk based capital buffer.

Revision to the Securitizations Framework

In July 2016 the BCBS set out provisions which favor the IRBA instead of external ratings. Introduction of minimum risk weight of 15% for securitizations, 100% for resecuritizations and introduction of risk weights of senior tranches and originators. The time frame for implementation was January 2018. Revision to Securitization framework is not part of the December 7th 2017 BCBS package.

The Standardized Approach for Measuring Counterparty Credit Risk Exposures (SA-CCR):

The credit counterparty risk for a few derivative classes and long settlement contacts will primarily be measured by trusting on the SA developed in 2014. The implementation date has been set as 1st of January 2017. Yet, the committee members could not start implementation on the due date so SA-CCR was not a part of the December 7th 2017 BCBS package.

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Minimum Capital Requirements For Market Risk

Against the crisis and under the umbrella of Basel 2.5 in 2009, the capital requirements for banks using Market risk modules is increased by a factor of approximately 2.5 at national and EU level. For market risk, minimum capital requirements will be computed either by a modified internal model approach or a revised SA. FRTB was already published in 2016 and now the time for implementation is postponed from 2019 to 2022. New definitions will be implemented for the instruments considered to be held either on the banking book or the trading book. According to FRTB there are a number of instruments that must be assigned to the trading book. In addition, exceptions to the rule as well as shifts between the trading book and the banking book necessitate supervisory approval. Furthermore, market risk will be measured on an Expected Shortfalls (ES) approach rather than the VaR and the stressed VaR methodology of Basel 2.5. This will assist banks to seize tail risk and capital adequacy in intense market tension times.

Standardised Approach for Operational Risk

To avoid the problems counteracted with the Operational risk structure of Basel III, a revised structure is revealed in December 2017. Accordingly, non-model-based SA will be used for operational risk capital due to the assumption that operational risk is related to risk. SA replaces the three existing approaches for the operational risk calculations, namely the Basic Indicator (BIA), Alternative Standardised (ASA) and the Advanced Measurement Approaches (AMA) and is to be applied from 1 January 2022. BIA and ASA were using as a base for the calculation of operational risk, the institution's average gross income; whereas in the case of AMA internal models were being used for the calculation of operational risk which used to generate capital requirements that varied excessively. Newly a Business Indicator (BI) and an Internal Loss Multiplier (ILM) will express individual firms' previous operational losses as a representative for operational capital requirements. In this way, extra cushions of capital will be build. The capital requirement for small institutions is determined as 12% of the BI and as high as 18% for large institutions. The loss component, at national discretion, has the power to increase (or decrease) the capital requirements for operational risk if the losses incurred are higher (lower) than the average in the long term. In terms of Operational risk, the changes that took place were targeting comparability and simplicity but neither seems to be fully achieved. Also the new SA will cause lack of risk sensitivity (KPMG, 2018).

Review of the Credit Valuation Adjustment (CVA) Risk Framework

The CVA risk covers losses from worsening of creditworthiness and/or market risk of the over-the-counter (OTC) derivatives. This set-up is revised. SA is introduced for CVA (SA-CVA) which now requires a supervisory authorization. Also, the basic approach (BA-CVA) is introduced which is a method for the computation of CVA capital requirements for organizations that are not authorized to utilize the SA. However, Internal model approach is removed. The objectives of the revision are to capture CVA risk, to bring consistency to the FRTB and to align with the fair value measurement of CVA under diverse accounting methods.

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Supervisory Framework for Measuring and Controlling Large Exposures

In April 2014 the BCBS published new provisions to provide a minimum cap for concentration risk to single counterparties put at 25% of bank's Tier 1 capital. For G-SIIs this border is put at 15% for exposures to other G-SIIs. This rule seems will have problems of implementation as of 2019. Large exposures is not a part of the December 7, 2017 BCBS package.

Pillar 3 Disclosure Requirements

Basel IV enhanced disclosure amendments could include deeper insights into capital and liquidity ratios. Hence "additional disclosure rules will seek to provide more granular data on, in particular, banks' loss-absorbing capacity and operational and market risk management at both the individual and aggregate level. Consultative Document on Pillar 3 disclosure requirements are published by BCBS in March 2016." (Amorello, 2016)

Step-In Risk

BCBS has published a conceptual framework that aims to identify, assess and address Step-in risk, which is the risk "underlying the relationship between a bank and shadow banking entities for which the bank may provide financial support beyond or in the absence of any contractual obligation in periods of financial distress." Step-in risk is not a part of the December 7, 2017 BCBS package.

Interest Rate Risk in the Banking Book

In April 2016 the BCBS revised its principles on IRRBB and set methods for banks to use in measuring, managing, monitoring and controlling interest rate risk. The implementation did not start in 2018 and it is not part of the December 7, 2017 BCBS package.

RISK MANAGEMENT IN THE EU

The implementation of Basel I into EU law has been with the Solvency Directive (Council Directive 89/647/EEC-which is no longer in force) and Own Funds Directive (Council Directive89/299/EEC-which is no longer in force.) The implementation into EU law of Basel II was by the Banking Directive (Directive2006/48/EC (repealed by Directive 2013/36/EU) and Capital Adequacy Directive (Directive 2006/49/EC repealed by Directive 2013/36/EU)

The international standards set by the BCBS in 2010 known as Basel III has been applied by the EU with Capital Requirements Directive (CRD-Directive 2013/36/EU of 26 June 2013) and Capital Requirements Regulation (CRR-Regulation (EU) No 575/2013 of 26 June 2013), which together form the CRD IV. CRR entered into force on 1st January 2014 and became directly applicable in the MSs and narrowed the variations in terms of applications among member states. The application of Basel III in the EU created united rules for all banks with CRR unifying rules in the EU's pillar 1 framework and finishing the diverging implementations of different nation states. The CRR contains provisions regarding capital requirements, liquidity, leverage and counterparty credit risk. CRD on the other hand, gives discretion in implementation to MSs. CRD contains provisions regarding prudential supervision, counter cyclical capital buffers, new capital conservation and some areas which are not covered by Basel III such

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as requirements in the area of corporate governance, regulation of variable remuneration, sanctions and measures regarding reducing reliance on external credit ratings. CRD IV concerns all credit organizations, and also investment companies. In terms of implementation the European Banking Authority (EBA) will have a fresh position replacing the role of national regulators. (Shearman & Stirling LLP, 2013).

On 23 November 2016 the EU Commission issued a proposal to amend CRD IV and CRR. The differences of Capital Requirements Regulation II (CRR II) and Capital Requirements Directive V (CRD V) from Basel IV is analyzed hereafter.

Capital Requirements Regulation II (CRR II)

- **Market Risk: (FRTB):** There are some deviations from the Basel accord in terms of covered bonds, sovereign exposures as well as internal and standardized approaches. Medium sized market risk related banks will use SA. For smaller trading books credit risk capital requirements are proposed to be used by the Commission. The market risk framework will be phased in over three years, with the application subject to a multiplier of 65%.
- **Total Loss Absorbing Capacity (TLAC):** TLAC standard is proposed as a Pillar 1 requirement for G-SIBs and MREL framework will be kept as a Pillar 2 practice with judgment powers to lay down supplementary loss–absorbency requirements for G-SIBs and total loss-absorbency requirements for non G-SIBS.
- **Leverage Ratio:** 3% leverage ratio is proposed as a minimum requirement for all institutions to be met with Tier 1; with a permission for higher measures to be imposed by national authorities. Assuming a RWA based Tier 1 requirement of 8.5%, the critical average RW (RWA/LR exposure) is 35,3%.
- **Standardized Approach for Counterparty Credit Risk (SA-CCR):** 2014 BCBS standard for SA-CCR is implemented with SA-CCR serving to replace Mark-to-Market Method and remove the Standardized Method, but a modified Original Exposure Method will be retained.
- **Net Stable Funding Ratio:** NSFR is proposed with a number of modifications to the BCBS standard in terms of certain financial instruments.
- **Regulatory reporting:** Reporting requirements have been simplified for small institutions. Reporting reliefs brought for institutions with less than 1.5 Billion EUR total assets. Exclusion of some national development banks from the scope of CRD/CRR is the new rule.
- **Disclosure:** New disclosure requirements are proposed by the Commission to better align the disclosure requirements to international standards including that of TLAC, CCR, Market risk and Liquidity requirements and investments in Insurance Undertakings. Firms are classified into significant, small and other firms as well as listed and non-listed firms for disclosure requirements.
- **SME Supporting Factor:** The Commission has reduced the SME capital requirements under both the standardized and IRB Approaches with SME defined as a corporation with a yearly turnover of less or equal to 50 million EUR. Total exposures up to 1.5mio EUR receive a supporting factor of 76.12%, exceeding RWA of 1.5 million EUR receive a supporting factor of 0.85%.
- **Financial Holding Companies:** CRR II allots direct responsibility to Financial Holding Companies to meet supervisory standards.
- **Large Exposures:** The Commission sets a 15% lower large exposure limit for exposures from G-SIBs to other G-SIBs and removes Tier 2 capital from the denominator of the large exposures

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calculation. Also, for measuring exposures to OTC derivatives SA-CCR is proposed even for banks who can use the internal models.

- **Investment Firms Review:** The EC proposed to exempt non-systemic investment firms from applying any of its modifications during the period between entry into force of CRR II and the entry into force of any legislation resulting from the investment firm review.
- **Treatment of Infrastructure Exposures:** The EC proposed to grant special treatment for credit risk for funding infrastructure projects.
- **Interest rate risk in the Banking Book:** The EC proposed disclosure rules to interest rate risk exposures that will apply two years after the entry into force of the CRR II.
- **Exposures to Central Counterparties:** The EC proposed to implement BCBS final standard for the bank exposures to CCs.
- **Waivers from capital and liquidity requirements:** The EC proposed that the implementation of own funds and liquidity necessities be waivers for subsidiaries established in other MSs than the parent.
- **IFRS 9:** The IFRS 9 endorsed into EU law, institutions will face severely higher risk provisions for financial instruments. The EC proposed a phase-in period until December 2023 for provisioning requirements for credit risk under IFRS 9.
- **Definition of financial institutions:** The EC proposed to exclude pure industrial holding companies from the definition in CRR II.

Capital Requirements Directive V (CRD V)

- **Pillar 2 capital requirements and guidance:** The EC clarified pillar 2 capital requirements and the main features of capital guidance.
- **Modified framework for interest rate risk in the Banking Book:** The EC proposed to include a common SA to replace the institution's model. The EBA is to detail the standardized methodology and define six supervisory shock scenarios.
- **Establishment of an EU Intermediate Parent Undertaking (IPU):** Banks having less than EUR 30 billion of assets and that are not part of G-SIBs are proposed by the EC to be exempt from the EU IPU requirement, the 30billion EUR being the consolidated assets of all EU institutions belonging to third country group, including branches authorized in the EU.
- **Remuneration:** The smallest and least complex institutions are proposed by the EC to be exempt from certain remuneration requirements[2]

THE POSSIBLE IMPACT OF CRD V/CRR II (BASEL IV) ON EU BANKS

Basel IV will be a game changer for the banking industry in Europe as, if the effects are not mitigated, the impact on the banks' capital will be an additional 120 billion euro and a reduction in ROE by 0.6%. Even if the effects may be significant only for some banks; the implementation of the new regulatory rules will necessitate one-off costs and provisioning needs. Additional capital requirements imposed by EU Supervisory Review and Evaluation Process (SREP) will strengthen capital verges, TLAC/MREL will cause in higher refinancing costs and also IFRS 9 seems will also affect capital ratios (McKinsey&

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Company, 2017). The analysis of Mc Kinsey& Company demonstrates that the existing CET1 ratios of European banks would fall by 29%. Also CET1 ratios of Belgium, the Netherlands, Sweden, Denmark, and Ireland are shaken most under the new regulatory set-up due to IRB output floors' gradual implementation. Large financial institutions in terms of total assets are affected more by Basel IV. SA retail banks are less affected in terms of capital impact when compared with specialized organizations, IRB retail banks and regional banks. In terms of ROE an average drop from 8% to 7.4% is anticipated for European banks, with the highest decline in universal banks and specialized institutions (McKinsey& Company, 2017).

According to KPMG (2017) the full adoption of the Basel IV framework by the European banks will cause quite important changes. The common equity Tier 1 (CET 1) which is the ratio of common equity to RWAs, would fall as much as 4% and others would see a fall by 18 bps, with capital ratios of major European banks falling by around 90 bps. Depending on the asset portfolios and the use of IRB models the highest impact would be seen in Sweden and Denmark with an average fall of the CET 1 capital by 2.5-3%, followed by Norway and the Netherlands with a decrease of 1.5%. The impact of Basel IV on pillar 1 capital requirements will differentiate according to business models. The decline of capital requirements for asset managers can be 2.8%, for sector lenders 1.6% and G-SIBS 70 bps. Moving from Advanced IRB to Foundation IRB will cause additional capital requirements. IRB output floor will affect the banks with high mortgage risks such as the banks in Netherlands and Scandinavia. The use of SA for Credit risk in addition to the Market and Operational risks will have an overall impact of around 10% on the capital impact of Basel IV. The capital requirements of Basel IV however, seem to be manageable for European banks due to long transition periods.

According to Citigroup Global Market estimates European banks RWAs will increase by 20% or 1.6 trillion Euros due to the reformed Basel III requirements. Also for Dutch and Fin banks -which have very high LTV ratios- the average standard risk weight for residential mortgages are estimated to increase by 10% under the new weightings which will cause a big change in terms of capital charges. Again, Nordic banks that are dependent on low-risk mortgage and lending businesses seem will be badly hit. The winners are the banks with a diverse portfolio as the case is with the larger EU banks. There are also fears that Basel III reform will cause capital problems in Europe especially for countries like Italy and Greece with high non performing loans (NPLs) (Olly, 2018)

BCBS released a quantitative impact study (QIS) after the finalization of the Basel III. The result of the QIS is that the global impact of the finalized Basel III with respect to pre-finalization of Basel III is low. For Group 1 large international banks there is a reduction of 0.5% in terms of minimum required capital (MRC) and an increase of 3.8% of MRC for Group 2 banks. Yet, the impact on G-SIBS is ranging from +42% to -28% (BWA Research, 2017).

On the other hand, European Banking Authority (EBA) released its QIS of the finalized Basel III. The data is collected from 149 banks from 17 EU banks. The sample refers to December 2015 and there are 36 Group 1 banks and 52 Group 2 banks which supplied necessary data for the QIS. The results suggest that the European banks will be rather seriously hit. The Tier 1(T1) MRC rises by 12.9% for all banks due mainly to the capital output floor and the constraints on the use of internal models. The effect is mainly felt by the Group 1 banks and the G-SIIs as the total change in T1 MRC is 14.1%. The effect is 3.9% for Group 2 banks. When the reasons for the increase in T1 MRC is analyzed, 6% increase comes from the credit risk components, 2.7% stems from operational risk reforms and 6.9% comes from the output floor. The negative impact comes from the leverage ratio (-1.6%) as shown in Table 11 (EBA, 2017).

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Table 11. Key findings of the EBA impact assessment

	Total		Credit risk				
	All Factors	of Which: Risk Based	IRB	SA	Operational Risk	Output Floor	Leverage Ratio
All banks	12.9	14.5	4.3	1.0	2.5	6.6	-1.6
Group 1	14.1	15.6	4.5	1.5	2.7	6.9	-1.6
G-SIIs	15.2	14.1	5.1	1.6	2.9	4.5	1.1
Group 2	3.9	5.3	2.7	-2.4	0.8	4.2	-1.3

Source: EBA Cumulative Assessment of the Basel Reform Package, 7 December 2017, Table 1

SOLUTIONS AND RECOMMENDATIONS

The Basel framework is evolving according to the changes in the risk exposures of the banking industry. Basel II has given discretion to banks to calculate their own risks. Basel III was a response to the crisis. However, what the market calls Basel IV now is a backward revision and extension of Basel II. Risk managers need to be aware of the changes in the risk environment of the banking industry and the consequent possible evolution in the Basel framework in order to be proactive in risk management and strategic decision making.

FUTURE RESEARCH DIRECTIONS

This study aims to analyze the Basel framework and its effect on the European banking industry. The study mentions that European banks, mainly the Nordic banks, large financial institutions, IRB banks, Greek and Italian banks and German cooperative banks will be rather badly affected from Basel IV. On the other hand, continuation of this study with a focus on the effects of Basel IV (CRDV) on all the banking types in all the European countries would be an appropriate continuation of this study.

CONCLUSION

Risk management in the EU, which runs through parallel initiatives to Basel framework, has evolved from Basel I to finalized Basel III or what the market calls “Basel IV”. Basel I was rather risk insensitive. Basel II became risk sensitive through the IRB approaches; mainly the Advanced IRB which was used by only a small number of banks, but the risk function lacked the integration with the finance and strategy functions. The first phase of Basel III was a quick response to the crisis. The finalized Basel III, despite the simplifications in some areas, takes the role from traditional risk compliance to strategic risk management.

Belgium, the Netherlands, Sweden, Denmark, and Ireland will be shaken most under the new regulatory regime due their CET1 ratios which will be affected by the IRB output floors’ gradual implementation. Large financial institutions in terms of total assets are affected more by Basel IV. SA retail banks are less affected in terms of capital impact when compared with specialized organizations, IRB retail banks and regional banks. In terms of ROE an average drop of around half a percentage is anticipated

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for European banks, with the highest decline in universal banks and specialized institutions. Nordic banks that are dependent on low-risk mortgage and lending businesses seem will be relatively highly impacted. The winners are the banks with a diverse portfolio as the case is with the larger EU banks. There are also fears that Basel III reform will cause capital problems in Europe especially for countries like Italy and Greece with high non-performing loans. In terms of country-wide effect, it seems also that the German cooperative banks will be negatively impacted. Global managers in the EU need to take strategic decisions in this new international risk management setting in order to succeed in this competitive global business environment.

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KEY TERMS AND DEFINITIONS

BCBS: Basel Committee on Banking Supervision is a committee at Bank for International Settlements which is set up by G-10 Central Bank governors in 1974 in Basel.

BIS: Bank for International Settlements is an international financial institution which is established with the aim of promoting global monetary and financial stability.

CRD (IV): Capital Requirements Directive (IV) is an EU legislative package that contains rules for banks, building societies and investment firms.

IRBA: Internal rating-based approach for credit risk empowers banks to use their own internal risk assessment methods to calculate their own regulatory capital charges.

Market Risk: Possibility of investor experiencing losses due to factors that affect the value of the investment due to equity, foreign exchange, commodity, interest rate risk.

Operational Risk: The risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events and also legal risk.

VaR: (Value at Risk) The VaR system provides a single statistical number of the worst expected portfolio losses in overall dollar values over a given horizon under 'normal' market movements at a given confidence level.

ENDNOTES

[1] The Market risk calculation methods of Basel I which are unchanged for Basel II will be analysed within the framework of Base II.

[2] For further details refer to Deloitte (2016): Summary of key proposals in the revised Capital Requirements Directive (CRD V) and Regulation (CRRII) https://www2.deloitte.com and PwC (2017): CRD V and CRR II: Finalising Basel III and Setting the Stage for Basel IV www.pwc.com/baselIV.

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Chapter 17
Gender Diversity and Independency:
Threat or Opportunity in Managing Innovative Property?

Derya Fındık
Ankara Yildirim Beyazit University, Turkey

Murat Ocak
Trakya University, Turkey

ABSTRACT

This chapter focuses on the impact of corporate governance indicators on intangible investment (innovative property) and aims to understand the linkages among gender diversity, independency, and intangibles. The literature on corporate governance has mainly focused on the relation between corporate governance indicators and firm financial performance. However, the mediating factor of intangibles receives less attention from scholars. This study uses two data sources at the firm level in Turkey. The first one is the "firm's annual reports" and the second one is the "KAP (Public Disclosure Platform of Turkey) database." This research covers 215 firms and 9 years from 2005 to 2013; a panel data methodology is used. The research suggests that firms with a certain level of board independency and gender diversity give emphasis to the intangibles.

INTRODUCTION

In recent years, organizations have focused more on managing intangible assets as they have become important components of the value creation process. Among various sets of management strategies, two of them, namely diversity and independency, play crucial roles in transforming intangible assets into business value. The presence of gender diverse groups in the senior management layer provides a broader information base for decision making, while independency has a strong indication of efficiency in the decision-making process.

In this paper, the argument is built that, at the firm level, the effect of corporate governance indicators such as independency and gender diversity on intangible assets should be examined using separate attri-

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butes of those assets. Based on Corrado, et al. (2004; 2005; 2006; 2009), intangible assets are classified into three categories. *Innovative property*, with a strong emphasis on the creation of new ideas, includes rights, patents, films, licenses and research and development (R&D) activities. Computer software, computer programs, information systems, and customer databases are in the second category '*computerized information and databases*'. The third group, *economic competence*, emphasizes the economic impact of intangibles such as agreements, advances given and special costs. Due to its transformative potential in creating business value, this paper focuses solely on one category, innovative property. The paper suggests that independency and gender diversity will generate differentiated effects both on investments in intangible assets and its sub-category, innovative property. This study contributes to the existing literature in at least three ways. First, the link between corporate governance and intangible assets is established by using firm level and longitudinal data. Second, the literature on corporate governance has mainly focused on the association between corporate governance indicators and financial performance. But the importance of intangibles has received less attention. This study aims to fill this gap in the literature. The final contribution is that the alternative indicator for innovativeness is proposed by using sub-categories of intangibles in this study.

LITERATURE REVIEW AND THEORICAL BACKGROUND

There is no unique theory to explain corporate governance or no agreed theory to find an answer to the question, 'What is good governance?' Stakeholder theory, agency theory, resource dependency theory, and upper echelons theory have been employed to explain corporate governance, especially where relating to the structure of the board and top management. The structure and attributes of boards have been defined and discussed in regulations, reports, and codex in various countries. In order to better understand the association among the attributes of the boards and top management team members and intangible assets, the following sub-titles are examined. First, theoretical background deals with why independent and women should be represented on boards or in top management. The relationship among independency, gender, and intangible investment is discussed based on these theoretical explanations. Then recent studies and empirical findings are analyzed in order to reveal the connection among the board of directors, top management, and intangible assets. Second, an overview of institutional settings from various countries is elaborated to understand the historical evolution of regulations with respect to boards and top management.

Independency and Intangible Investment

Agency theory deals with the problem that occurs due to the conflict of interest between principals (the shareholders or owners of the firm) and agents (firm managers or executives). While principals expect to maximize their welfare through agent operations, agents behave in a way that relies on their own interests (Jensen & Meckling, 1976; Hendry & Kiel, 2004, Eisenhardt, 1989; Hirschey, 2003). Among various mechanisms, internal monitoring of the board of directors plays a key role in the management of conflict between shareholders and board members, and is used extensively to solve principal-agent problems (Hill & Jones, 1992; Donaldson & Davis, 1991; Depken II, Nguyen, & Sarkar, 2006; McKnight & Weir, 2009). To improve monitoring effectiveness, independent and non-executive members should have a seat on the board of directors (Donaldson & Davis, 1991). While the presence of independent

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members on the board is crucial for conflict management in agency theory, stakeholder theory prioritizes satisfaction of stakeholders' interests in order to achieve higher performance (Abdullah & Valentine, 2009; Freeman & McVea, 2001; Terjesen, Aguilera, & Lorenz, 2015; Terjesen, Couto, & Francisco, 2016). Representation of stakeholders in the form of independent and dependent members within the board, therefore, is important in satisfying their interests. Resource dependency theory, on the other hand, emphasizes the importance of external linkages to access strategic resources. Boards are perceived as resource providers who engage in exchanges and transactions (Pfeffer & Salancik, 1978). Therefore, both independent (outside) and dependent (inside) board members should have a seat on the board of directors owing to their high potential as resource providers. Moreover, gender and ethnic diversity on boards increases resources brought in by individual board members and expands the organization's access to external resources (Ayuso & Argandoña, 2007).

Intangibles that are commonly named as intangible assets—knowledge capital, intangible capital, or non-physical capital—are key value assets that need to be developed and utilized in order to achieve firm growth (Jarboe, 2015), and may drive higher quality (Wruck & Wu, 2008). Most classifications of intangible assets refer to their roles in creating economic or accounting value. Corrado, et al. (2005), relying more on the economics perspective, divide intangibles into three functional categories: computerized information (software), economic competency (brands, advertising expenses, etc.), and innovative property (patents, R&D, licenses, etc.). In accounting literature, intangibles refer to patents, licenses, computer software, copyrights, motion pictures, films, licenses, franchises, models, designs, prototypes, and capitalized R&D, etc. (Falk, 2013). Regardless of the classification being used, intangibles play a vital role in achieving high firm performance, which in turn increase competitive advantage (Marr, Gupta, Pike, & Roos, 2003; Rea & Davis, 2005). Intangible assets can be considered strategic resources due to their predominant effect on creating financial value to the firm. Additionally, they are rare and not easily imitated by other firms (Flatt & Kowalczyk, 2008).

Return on intangible assets such as R&D activities requires quite a long term with a low rate of success; the risk inherent in these activities is higher than those of physical or financial assets. Since managers, in general, tend to be risk averse, their incentives favor short term outcomes instead of highly uncertain and risky activities. When managers' salary and compensation such as cash and stock bonus schemes are based on firm performance, their proclivity for risky projects such as R&D will be low. Moreover, they may lose their jobs due to the high probability of R&D projects failing. Independent board members who are not employed in executive positions monitor managers more effectively and behave more objectively than dependent board members do. Even though managers are not willing to invest in risky activities such as R&D projects due to their own self-interest, independent board members effectively supervise, control, and encourage managers to invest in high return projects (Holmstrom, 1989; Baysinger, Kosnik, & Turk, 1991; Dong & Gou, 2010; Hillier, Pindado, Queiroz, & Torre, 2011; Honoré, Munari, & Potterie, 2015; Rapp & Udoieva, 2016). A number of studies deal with the association between the amount of intangible investments and the percentage of independent board members. Dong and Gou (2010) investigate the effect of corporate governance characteristics such as independence, state ownership, managerial ownership, and ownership concentration on R&D intensity, and detect a positive association between the number of independent board members and R&D investment. In a similar vein, Lu and Wang (2015), Rossi and Cebula (2015) and Zona (2016) highlight the importance of board independence for enhancing R&D investment. Considering the relationship between board independence and other forms of intangible investment, board independence is positively associated with the number of patents (Shapiro, Tang, Wang, & Zhang, 2015). Martini, et al. (2012) investigate the effect of vari-

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ous characteristics of board members on total intangible assets and total R&D costs. They found that the number of outside directors on boards is positively associated with investment in intangible assets.

Independent directors and inside directors, on the other hand, access information through different channels. Independent directors obtain information about the firm mainly through financial statements, while inside directors participate in the decision-making process. Consequently, independent directors' knowledge of intangibles and R&D projects is less sufficient and qualified than that of inside directors (Ren, Chandrasekar, & Li, 2012). Dependent or internal board members are knowledgeable about firm operations and the industry that the firm operates in, which provides opportunities for strategic innovation. Independent members, on the other hand, due to their lack of knowledge about internal firm processes, are reluctant to invest in R&D activities (Hoskisson, Hitt, Johnson, & Grossman, 2002; Prugsamatz, 2015). From this perspective, some researchers found negative or insignificant relationships between intangibles and board independence. Lee (2015), Chen and Hsu (2009), David, et al. (2001) and Cheng (2008) found that board independence does not affect R&D investment decision-making. The findings of Guldiken and Darendeli (2016) suggest that there is a U-shaped association between board monitoring and R&D intensity. Also, Yoo and Sung (2014) found negative and significant relationships between the share of outside directors and R&D intensity. Baysinger, et al. (1991) argued that higher inside representation on the board positively affects R&D spending, while insignificant relationships among insider directors, R&D spending, and the number of patents is observed by Balkin, et al. (2000). A group of studies provides contrary results regarding R&D spending or investment in new product development and the existence of independent members on the board (Zahra, 1996; Galia & Zenou, 2013). Consistent with findings from Martini, et al. (2012), Rossi and Cebula (2015), Shapiro, et al. (2015), Dong and Gou (2010), Zona (2016), the following hypothesis is proposed.

Hypothesis One: There is a positive relationship between the percentage of independent directors on the board and investment in intangible assets.

Gender Diversity and Intangibles

Among various theoretical approaches, resource-based theory touches upon the important role of board members in generating strategic resources. Accordingly, the board is a potential provider of resources (Martini, Corvino, & Rigolini, 2012). The board plays a mediating role between the firm and the external environment (Wernelfelt, 1984; Pfeffer & Salancik, 1978; Hillman & Dalziel, 2003). The presence of diverse members on the board eases access to strategic resources that help firms eliminate uncertainties stemming from changes in external conditions (Singh, Terjesen, & Vinnicombe, 2008). Some research findings emphasize that the presence of female members on the board increases intangible investment and R&D activities owing to their unique capabilities in understanding consumer needs and behaviors (Gonzales-Bustos & Hernández-Lara, 2014; Martini, Corvino, & Rigolini, 2012; Galia & Zenou, 2012; Kang, Cheng, & Gray, 2007) as well as to access to external resources (Ayuso & Argandoña, 2007). Additionally, businesses could gain competitive advantage by including more innovative women on their boards (Mahadeo, Soobaroyen, & Hanuman, 2012). Having access to various resources, the board provides unique information, which in turn will lead to making more strategic decisions (Carter, D'Souza, Simkins, & Simpson, 2010; Noor, Kamardin, & Ahmi, 2016).

There are differences between males and females in terms of values, leadership styles, management skills, and behaviors. It is argued that females, in general, are less confident and more risk-averse than

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males, which makes them less willing to invest in risky projects such as R&D (Faccio, Marchica, & Mura, 2016; Yao, 2015). Studies focusing on gender diversity on boards provide supportive evidence for the positive impacts of the presence of female members on R&D intensity (Miller & Triana, 2009; Midavaine, Dolfsma, & Aalbers, 2016). However, a number of studies have found no significant association between intangibles and gender (Martini, Corvino, & Rigolini, 2012; Loukil & Yousfi, 2013; Sila, Gonzalez, & Hagendorff, 2014; Ojok & Okema, 2016), while adverse effects of female presence is observed for firms that introduce new products (Galia & Zenou, 2013). Consistent with the findings of Miller and Triana (2009) and Midavaine, et al. (2016), the following hypothesis is proposed.

Hypothesis Two: There is a positive relationship between the percentage of female directors on the board and investment in intangible assets.

According to upper echelons theory, organizational outcomes are viewed as the reflections of values and cognitive bases of powerful actors (top management) in the organization. While age, tenure, formal education, career experience, socioeconomic background, and financial position of top management team members directly affect the manager's strategic choices, those factors indirectly affect the organization's performance indicators, such as profitability and growth (Hambrick & Mason, 1984). The individual characteristics of top managers affect their strategic choices, which ultimately generate specific outcomes for the bottom line (Oppong, 2014). Moreover, conventional indicators of individual characteristics such as age, education, and experience, upper echelons theory has been expanded to include race and gender in recent years (Richard, et al, 2004). In other words, gender and race diversification in top management teams are viewed as crucial factors that affect managers' strategic choices and the organization's performance. Ruiz-Jiménez, et al. (2014) find that gender diversity positively eases the association between knowledge combination capability and innovation performance. In a similar vein, some studies used technological innovation capability as a proxy for intangible assets and found a positive association between female participation in the top management team and technological capability, which is calculated as the percentage of R&D expenditure on sales or percentage of new product sales of total revenues (Zeng, 2012; Yao, 2015). On the other hand, Zhu and Yin (2016) found that the top management team size and the existence of female executives on the top management team affect R&D intensity negatively, but found no significant association between intangibles by R&D expenditure (Yuan, Wang, & Jia, 2012) and technological innovation (Damanpour and Schneider, 2006) where gender diversity is observed. Consistent with Ruiz-Jiménez et al. (2014) findings, the following hypothesis is proposed.

Hypothesis Three: There is a positive relationship between the percentage of female members on the top management team and investment in intangible assets.

INSTITUTIONAL BACKGROUND

Various institutional settings with respect to board structure are discussed in the different recommendation reports, such as Cadbury and the Business Roundtable. Subsequently, the regulatory bodies made arrangements to compare companies in different countries. Table 1 briefly explains the recommendation reports and corporate governance codes regarding board structures in various countries.

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Table 1. Summary of selected recommendation reports and codes

COUNTRY	Recommendation Report & Code	Board Structure
UK	Cadbury Report (1992)	• "The board should include non-executive directors of sufficient calibre." • "CEO and chairman of board of directors should not be held by the same individual."
	Hampel Report (1998)	• "The board should include a balance of executive and non-executive directors." • "The roles of chairman and CEO should never be combined."
	The Combined Code (2014)	• "The board should include an appropriate combination of executive and non-executive directors." • "The roles of chairman and chief executive should not be exercised by the same individual." • "Board should be of sufficient size."
FRANCE	Viénot I Report (1995) & Viénot II Report (1999)	• "Board should consider the desirability of appointing one or more independent directors." (Viénot II Report: "The independent directors should account for at least one-third of the board of directors.") • "The head of company management and chairman of the board should be separated." • "The board generally meets three or four times a year."
	AFEP-MEDEF (2013)	• "The independent directors should account for half the members of the board in widely-held corporations without controlling shareholders." "For monitored firms, independent directors should account for at least a third." • "Each board shall reach and maintain a percentage of at least 20% women within a period of three years and at least 40% women within a period of six years." • "The chairman of board and CEO are separate."
USA	Business Roundtable (1997-2002)	• "The board of a publicly-owned corporation should have a substantial degree of independence from management."
	The Council of Institutional Investors (CII) (2013)	• "At least two-thirds of directors should be independent." • "The CEO and chair roles should only be combined in very limited circumstances." • "Board should have no fewer than five and no more than 15 members." • "The council supports a diverse board."
TURKEY	Capital Markets of Board of Turkey (2003,2005, 2012, 2014)	• "The number of independent board members cannot be less than one third of the total number of board of directors." • "The authorities of the chairman of the board of directors and the chief executive officer/ general manager shall be explicitly separated." • "Corporation shall determine a target rate, provided that it is not less than 25%, and a target time for membership of women on the board of directors."
INTERNATIONAL	OECD (2015)	• "Board should consider assigning a sufficient number of non- executive board members." • "Separation of role of CEO and Chairman is generally regarded as good governance practice." • "Gender diversity on boards and in senior management is supported."

Even though the legal structures of countries affect institutional arrangements (Grosvold & Brammer, 2011; Iannotta, Gatti, & Huse, 2015), draft proposals and reports published in the world's leading and developed countries shed light on the regulatory arrangements of developing countries in corporate governance. The emphasis on independent members on the board began with the Cadbury Report published in the UK. The reflections of this report and the issues on which it is addressed are seen in the regulations and reports published in different countries. On the other hand, an emphasis on the involvement of women in the governing body first appeared in France. It is emphasized that women should be included in the executive committee because it is the women who are the best representatives of women.

Corporate governance arrangements in Turkey were affected by regulations in the United Kingdom, the United States, and France. The first regulation on corporate governance in Turkey was published by

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TÜSİAD (Turkish Industry and Business Association) in 2002. This is a recommendation report and is not required to be implemented by the business. The regulation emphasizes the importance of independent members and the independence of the chairman for effective supervision. In 2006, the BDDK (Banking Regulation and Supervision Agency of Turkey) issued a regulation for financial institutions emphasizing the importance of the members who were not involved in the management of the organization and duality. Apart from the regulation that the BDDK has proposed for financial institutions, after the report of TÜSİAD's proposal, the CMB-SPK (Capital Markets Board of Turkey) issued a report in 2003 for Borsa Istanbul firms, and the published report was revised in 2005. The aim of this report is to impose good governance principles on Borsa Istanbul firms. According to this report, at least one-third of the board of directors should be composed of independent members on the board of directors. The report, published in 2005, was revised in 2012. The revised version includes a specific regulation, emphasizing that there should be at least one female member on the board of directors and that at least one-third of the board of directors should be composed of independent members. In 2014, the CMB-SPK revised this report. Unlike the revision in 2012, this revision emphasizes that companies must set a specific timeframe to increase the proportion of women members on the board of directors to at least 25 percent.

RESEARCH AND APPLICATION

The following sections cover the sample selection and the sample selection procedure, and research models.

Sample Selection

The independent variables that reflect the attributes of the board and top management are obtained from the firm's annual report and the KAP (Public Disclosure Platform of Turkey) database (www.kap.org.tr). The dependent variables related to intangible assets (cumulative intangible assets and innovative property) are obtained from the firm's annual financial statements and the FINNET database (www.finnet.com.tr). The variable *institutional ownership percentage* is acquired from Turkish Capital Market Association Database (www.tspb.org.tr). There is a total of 3204 firm*year observations of Turkish Listed Firms for the year 2005 to 2013.

There are three primary reasons for choosing this time period. Firstly, International Financial Reporting Standards (IFRS) have been applied since 2004. Before and after that year, variables such as financial leverage and intangible assets were calculated using various valuation techniques that make comparability among variables difficult. The dataset starts from 2005 due to this reason. Secondly, the dataset was compiled starting in 2014 through detailed reading of the information available in footnotes of the reports, so that time period ended in 2013. Finally, regulations with respect to gender diversity and independency were implemented in 2012. The time period in the dataset (2005 to 2013) is long enough to observe those changes.

The sample is chosen on the basis of the following criteria: 954 firm*year observations were excluded since financial firms are subject to different regulations; 63 firm*year observations have different financial year-end; and 725 firm*year observations are excluded due to the lack of some variables. The final sample comprised 215 firms and 1462 firm*year observations.

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Table 2. The sample size and the selection procedure

	Firms	*Firm*Year Obs.*
Firms Listed on Borsa İstanbul as of 31 December 2013	356	3204
Excluded		
Firms in Financial Sector		954
Firms Financial Year-End Other Than December		63
Sub-Total		2187
Firms Lacking Intangible Assets and Corporate Governance Data		725
Total	215	1462

Specification of the Research Design

This paper investigates the impacts of board member and top management characteristics on intangible investment. In the first model, the cumulative intangible investment amount is employed as a dependent variable, which is calculated as the proportion of cumulative intangible assets to non-current assets (Intangible). In the second model, the innovative property amount is employed as a dependent variable, which is calculated as in Corrado, et al.'s studies (2004; 2005; 2006; 2009). In this paper, innovative property is composed of the total amount of patents, licenses, designs, copyrights, and capitalized R&D. The empirical model is as follows.

$$Intangible_{it} = b_0 + b_1\,Boardind_{it} + b_2\,Boardfemale_{it} + b_3\,Topfemale_{it} + b_4\,Firmsize_{it} + b_5 Leverage_{it} + b_6 Firmage_{it} + b_7 Profitloss_{it} + b_8 Region_I_{it} + b_9 Industry_I_{it} + \varepsilon_{it} \quad (1)$$

$$Innovative\ Property_{it} = b_0 + b_1\,Boardind_{it} + b_2\,Boardfemale_{it} + b_3\,Topfemale_{it} + b_4\,Firmsize_{it} + b_5 Leverage_{it} + b_6 Firmage_{it} + b_7 Profitloss_{it} + b_8 Region_I_{it} + b_9 Industry_I_{it} + \varepsilon_{it} \quad (2)$$

The test variables are board independency (*Boardind*), women on board (*Boardfemale*), and women on top management team (*Topfemale*). *Boardind* is the number of the independent members divided by the total number of members on the board; *Boardfemale* is the total female members divided by the total number of members on the board; *Topfemale* is the total female numbers divided by total number of the top management, where top management refers to the members of the key management team and the members of the executive committee reported in the firms' annual reports. In the study, top management does not include the members of the board. To control the models, control variables are used such as firm size (*Firmsize*), which is calculated as the natural log of firm's total assets; leverage (*Leverage*) is obtained by dividing total debt by total assets. Firm age (*Firmage*) is calculated by the number of years since establishment; profitability (*Profitloss*) is measured as the total income divided by total assets; region (*Region_I*) is 1 if firm is in İstanbul city (0, otherwise); and industry (*Industry_I*) is 1 if firm operates in a manufacturing industry (0, otherwise).

Large firms have strategic resources to develop intangible assets such as R&D. (Baker & Mueller, 2002; Lin, Lin, Song, & Li, 2011; Ojok & Okema, 2016). As the size of the firm increases, investment in intangibles increases (Mezghanni, 2010; Minetti, Murro, & Paiella, 2015; Arrighetti, Landini, &

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Lasagni, 2014; Chappell & Jaffe, 2016). Old firms are reluctant to develop new products and processes so that they tend to protect the status quo and not invest in intangible assets (Lin, Lin, Song, & Li, 2011; Tsai, Lu, & Yen, 2012; Zona, 2016). In addition, it is more probable that the number of women or independent members on boards of large firms is more than that of small firms (Chen, Ni, & Tong, 2016). Since intangible assets are not suitable for trading (non-tradeable), there is a negative relationship between them (less available for supporting debt) (Long & Malitz, 1985; Mezghanni, 2010; Rossi & Cebula, 2015). There is a positive association between profitability and R&D investments due to the fact that the presence of high profits encourages firm managers to invest in risky projects (Baker & Muller, 2002; Mezghanni, 2010). The type and amount of investments in intangibles vary with respect to sectors (Galia & Zenou, 2012). This variable is included in the analysis. Additionally, regional location may also affect intangible investments since some regions are much more developed and provide many more opportunities to firms. Istanbul is one of the most developed regions in Turkey in which a number of large firms operate. In order to control the region effect in this study, region dummies are used.

Analysis Results

The following sections cover the descriptive statistics regarding variables and estimation results regarding model 1 and model 2.

Descriptive Statistics

The descriptive statistics are presented in Table 3.

Table 3 shows that 10.4 percent and 11.1 percent of the board, respectively, consist of independent (*Boardind*) and female members (*Boardfemale*). Maximum value of independency and female percentage are, respectively, 57.1 percent and 75 percent. Top management consists of 11.8 percent female persons (*Topfemale*). The average age (*Firmage*) of observations is 35. The average leverage (*Leverage*)

Table 3. Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Minimum	Maximum
Intangible	1462	0.079	0.142	0	0.959
Innovative Property	1462	0.056	0.117	0	0.967
Boardind	1462	0.104	0.148	0	0.571
Boardfemale	1462	0.111	0.140	0	0.750
Topfemale	1462	0.118	0.159	0	1
Firmage (Log)	1462	3.472	0.514	0	4.624
Firmage	1462	35.86	14.68	1	102
Leverage	1462	0.510	0.4952	0.006	8.674
Profitloss	1462	0.027	0.226	-3.228	6.804
Firmsize	1462	19.459	1.544	15.3227	23.957
Region_I	1462	0.531	0.499	0	1
Industry_I	1462	0.800	0.399	0	1

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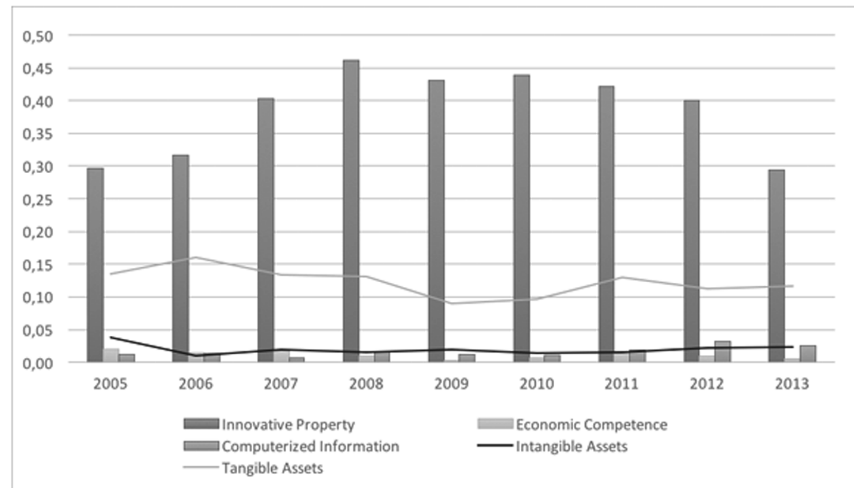
Figure 1. Distribution of tangible and intangible assets with their subcomponents Source: Fındık and Ocak (2015)



and profitability (*Profitloss*) percentage of observations are 51 percent and 2.7 percent, respectively; 53.1 percent of observations are located in Istanbul region (*Region_I*); and 80 percent of observations operate in a manufacturing industry (*Industry_I*).

Correlation Matrix and Estimation Results

In recent years, there has been an increasing trend in intangible asset investment despite its lower ratio in comparison to tangible ones (Figure 1). Looking at the subcomponents of intangibles, innovative property with strong emphasis on creation of new ideas comes to the fore, which implies that the growth tendency in intangible investments stems from those items.

To test the effect of selected governance indicators on intangibles and innovative property, random and fixed effect panel data methodology are employed. Prior to model estimation, the correlative types of relationships among independent variables are analyzed. The outcomes of the correlation table are shown in Table 4, indicating potential multi-collinearity between some variables. Related tests are applied to control for multi-collinearity in the econometric analysis, which appears in Table 4. There are four models tested. Models 1 and 2 represent estimation results for intangible investments, while results for innovative property are demonstrated by Models 3 and 4. Based on the test results, fixed effects models for both intangible assets investments and innovative property are relied on.

The variable *Boardind* gives positive and significant results for intangible asset investment and innovative property, implying that the existence of external members on the board increases investment in those assets. Internal members are less willing to invest in assets or projects that are risky in nature. Those members behave in a way that relies on protecting the status quo. External members, on the other hand, may approach those risky investments more eagerly since they can evaluate the firms' processes objectively. The positive and significant effect of the *Boardind* variable provides strong evidence for Hypothesis 1. For *Boardfemale*, similar results are not obtained. At this point, we need to examine the effect of an additional indicator, *Topfemale,* which is positive and significant for both Model 2 and

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Table 4. Correlation Matrix

	Intangible	*Inno.Prop.*	*Boardind*	*Boardfemale*	*Topfemale*	*Firmage*	*Leverage*	*Profitloss*	*Firmsize*	*Region_I*	*Industry_I*
Intangible	1										
Inno.Prop.	0.639***	1									
Boardind	0.169***	0.135***	1								
Boardfemale	-0.0223	-0.0187	-0.0759**	1							
Topfemale	0.103***	0.0806**	0.0485	0.172***	1						
Firmage	-0.0759**	-0.113***	-0.00317	0.0249	-0.0430	1					
Leverage	0.0728**	0.0811**	0.0432	0.0251	0.0917***	0.00216	1				
Profitloss	0.0520*	0.0493	0.0178	-0.0338	-0.0698**	0.0220	-0.0349	1			
Firmsize	0.145***	0.0256	0.0841**	-0.176***	-0.164***	0.200***	-0.0713**	0.133***	1		
Region_I	0.210***	0.179***	0.0379	-0.0652*	0.115***	-0.127***	0.0329	-0.0212	0.213***	1	
Industry_I	-0.273***	-0.256***	-0.0598*	0.0441	-0.0794**	0.363***	-0.0214	0.00403	-0.0548*	-0.29***	1
*** p<0.01, ** p<0.05, * p<0.1											

Model 4. *Boardfemale* has a negative and significant effect only for Model 4. The adverse effect may stem from the fact that board members' terms of office are much shorter than that of top management teams. Hypothesis 2 is rejected. The existence of female members in the top management team, on the other hand, triggers both intangible asset investment and innovative property, which is in favor of Hypothesis 3. The argument is that firms can be managed efficiently with a certain level of independency and diversity, which in turn leads to higher amounts of intangibles. The results support the argument. The control variables *Firmsize*, *Leverage*, *Firmage,* and *Profitloss* generate positive impacts on intangible asset investment and innovative property.

SOLUTIONS AND RECOMMENDATIONS

The results of this study provide practical implications with respect to gender diversity and independency. Firstly, presence of female managers in the top management team eases investment in intangibles and innovative properties, while this is not the case for the board. This finding implies that the number of female members on the board needs to be increased on the one hand, and firms should maintain the number of female managers in top management team at a certain level in order to exploit the dual effects of diversity on the other. As for independency, the existence of independent members on the board increases the objectivity of the decisions and will increase overall firm efficiency, so firms should monitor their activities and compare the efficiency differentials with past performance evaluations.

FUTURE RESEARCH DIRECTIONS

For future research, other dimensions of intangible assets (computerized information and databases, and economic competence) may be used as dependent variable and the effects of gender and independency on these types of intangible assets may be presented. This study has some limitations with respect to

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Table 5. Estimation Results

	Random Effects Model 1	Fixed Effects Model 2	Random Effects Model 3	Fixed Effects Model 4
	Intangible		*Innovative Property*	
Boardind	0.0660***	0.0371**	0.0525***	0.0283*
	(0.0164)	(0.0182)	(0.0142)	(0.0156)
Boardfemale	-0.0141	-0.0268	-0.0297	-0.0455*
	(0.0269)	(0.0287)	(0.0233)	(0.0247)
Topfemale	0.116***	0.139***	0.0798***	0.0979***
	(0.0244)	(0.0262)	(0.0214)	(0.0228)
Firmsize	0.0131***	0.0205***	0.00580	0.0140**
	(0.00443)	(0.00643)	(0.00398)	(0.00554)
Firmage	0.0115	0.0658***	0.0175	0.0668***
	(0.0148)	(0.0238)	(0.0134)	(0.0206)
Leverage	0.0266**	0.0356***	0.0202**	0.0218*
	(0.0107)	(0.0130)	(0.00938)	(0.0111)
Profitloss	0.0169*	0.0185*	0.0196**	0.0197**
	(0.00967)	(0.00977)	(0.00830)	(0.00838)
Region_I	0.0268		0.0279	
	(0.0188)		(0.0174)	
Industry_I	-0.110***		-0.0960***	
	(0.0246)		(0.0230)	
Constant	0.00120	-0.312***	0.00633	-0.284***
	(0.0547)	(0.0875)	(0.0499)	(0.0756)
Observations	1,462	1,462	1,454	1,454
R-squared		0.061		0.054
Number of panel	215	215	215	215
Adjusted Wald Test Chi^2		1.8e+09***		7.3e+28***
Baltagi-Wu LBI **OLS vs Random Effects** **Breusch-Pagan Lagrange Multiplier Test** chibar^2 **OLS vs Fixed Effects** F Test **Random vs Fixed** Hausman test	1.318 724.38***	21.20*** 37.96	1.436 873.83***	19.32*** 31.51
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				

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the dataset. First is that, since IFRS was not applied in 2004 and earlier, we did not include the dataset for that period in this paper. To generalize the results, further analysis using longitudinal data is needed.

The second limitation is that in the dataset, corporate governance variables are measured at binary scale. Use of continuous variables could help generalize the results. Additionally, further study could be implemented with emerging countries' datasets in order to compare the results.

CONCLUSION

The aim of this paper is to explain the factors underlying the relationship between intangible assets and corporate governance indicators. The results reveal some interesting insights into strategy formulation targeting intangible assets within the organisation. Firstly, the results reveal a significant positive impact of board independency (Hypothesis 1) and the existence of female members in the top management team (Hypothesis 3), while Hypothesis 2 is rejected.

Distinguishing between two corporate governance indicators, independency and gender diversity, the findings reveal that firms with a certain level of board independency and gender diversity tend to invest in intangible assets. This may be explained by the commonalities in investment strategies among firms. Firms having independent board members are more open to investing in risky projects. In addition, the findings suggest that when top management decisions are made by gender-diverse groups, the probability of investing in projects with a high potential of long term success increases.

There are also some results that are counter-intuitive to initial expectations. For example, findings show that the presence of female board members negatively affects intangible asset investment (Hypothesis 2). In other words, while board independency increases the probability of making risky investments, gender diversity on the board has an adverse effect. This result shows the power of independent members despite their shortness of job duration.

NOTE

An earlier version of this chapter was presented at 25th Ulusal Yönetim ve Organizasyon Kongresi (YONORG, 2017), Ankara, Turkey, 25-27 May 2017. This paper is an extended version of a paper presented at YONORG 2017.

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KEY TERMS AND DEFINITIONS

BDDK: Banking Regulation and Supervision Agency of Turkey.
CEO: Chief executive officer.
CMB-SPK: Capital Markets Board of Turkey.
FINNET: Financial Information News Network.
IFRS: International financial reporting standard.
KAP: Public disclosure platform of Turkey.
R&D: Research and development.
TÜSİAD: Turkish Industry and Business Association.
UK: United Kingdom.

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Chapter 18
How Social Media is Transforming Marketing?

İbrahim Kırcova
Yıldız Technical University, Turkey

Ebru Enginkaya
Yıldız Technical University, Turkey

ABSTRACT

Integrating companies to digital channels is a necessity to build and maintain a competitive advantage in today's market conditions. In the business environment, companies realize that sustainable competitive advantage can be gained only by understanding customers' needs and expectations, developing activities that meet their demands, ease their work, and engage them to the brand to create difference and value. Success in marketing will be driven by an effective communication and consumer experience. Marketing and brand managers are in the process of determining how social media tools impact them and what their digital transformation approach and communication strategy should be. This chapter examines the importance of social media for companies and benefits of social media on the performance of marketing processes that enable better communication, planning, and execution from consumer engagement to consumer purchase.

INTRODUCTION

Marketing is in a state of change since digital technologies have become so pervasive in social media channels and consumer expectations. Companies are adopting changes through the adoption of social media channels and technology. Social media provide an individualized opportunity for marketing executives to help them make better informed strategic decisions. Companies can catch the opportunity to carry their operations and make customer communication faster, focused, continuously and multichannel with the right data gained from social media platforms and in this way companies can present their segments differentiated and valuable experience.

Social media plays an important role in the shifting of marketing, along with different consumption patterns and various communication ways. Today, social media is an important interactive communication channel that allows for two-way, real-time interaction and feedback. Interaction and engagement with

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social media can help businesses to more effectively market to and communicate with its customers. Also, most of the consumers engage with brands through social media and brands use social media platforms as an information and a fundamental contact point with consumers (Clark, Black, & Judson, 2017).

Social media delivers measurable results in sales, leads, and branding. It also enables to reach a large number of people at a low cost. Relevant market and consumer data can be collected through different social media tools. The data gathered from social media channels can be designed to help marketing executives understand and capitalize on the evolving insights and trends that are impacting the company across all segments. With the data obtained from various social media channels, marketing managers identify and prioritize segments, develop comprehensive and relevant offerings, focus on and apply valuable social media marketing strategies to improve the omnichannel customer communication. By tracking and analyzing important trends and consumers on social media, companies can achieve higher levels of information while reducing costs. The objective of the chapter is to indicate the significance of social media channels in the marketing strategies of businesses with the rapid development of technology and innovations.

THE IMPORTANCE OF SOCIAL MEDIA PLATFORMS

In an increasingly competitive environment for each company main purpose is to offer faster, better quality and more affordable proposals than main competitors. For this purpose, companies utilize all kinds of technological innovation and possibilities. On the other hand, customer expectations are increasing and these high expectations are driving businesses. Focusing only on product or service quality is not enough, also it is important to meet customer expectations almost on a personal basis, to facilitate sales and after-sales processes and to provide the customer with a unique experience. However, for companies, it is not enough to communicate only with the customer, but also to interact with them. Being able to interact with customers is crucial in terms of knowing, understanding, meeting their expectations by interacting. Companies that are interacting with customers are more successful superior to competitors. Innovations in social media and continuous improvements are now key components of competitive and differentiation strategy that directly impact consumers.

The world of social media networks is dynamic and in constant change. Social media just keeps growing. According to statistical information by WeareSocial (2018); the number of internet users in 2018 is 4.021 billion, the number of social media users in 2018 is 3.196 billion, equaling 42% penetration. The average social media user spends 135 minutes a day online. Facebook's platform still dominates the global social landscape, with total users up 15 percent year-on-year to reach almost 2.17 billion at the beginning of 2018. There are now more than 50 million small businesses using Facebook Pages to connect with their customers. 4 million of those businesses pay for social media advertising on Facebook. 68% of marketers have published video content on Facebook. (Hainla, 2018). YouTube has 1.5 billion users and on average, people spend 40 minutes a day watching YouTube. Instagram has 1 billion monthly active users and Instagram Stories has 300 million users worldwide. Twitter has 300 million monthly active users. LinkedIn has 500 million, Pinterest has 200 million, Snapchat has 178 million users worldwide. The average internet user has 7 social media accounts and 88 percent of businesses are on social media (StrikeSocial, 2018).

Users who spend more and more time on social media platforms, starting with Facebook, Twitter, YouTube, and Instagram, are increasingly learning about other people's ideas about products and ser-

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vices they will buy and collecting information about brands. The purchases made are assessed and these evaluations are shared in a way that everyone can reach with various applications. These developments have led to the emergence of the concept of "social media marketing".

Social media is defined as "a group of internet-based applications that build on the ideological and technical foundations of Web 2.0, and that allow the creation and exchange of user generated content" (Kaplan & Haenlein, 2010). Carr and Hayes (2015) broadly defined social media as "internet-based channels that allow users to interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others".

The increase in the number of users on social media platforms has also led businesses and brands to focus on this concept. Individuals who are overwhelmed by the one-sided, repressive and compelling ways of traditional media tools prefer to spend time on social media platforms where control is largely in their hands. Today, individuals are talking, discussing and interacting with each other by sharing texts, graphics, audio files, video files, and photos on these platforms. Consumers share information about the products, services, brands, and experiences they choose to purchase. Whiting and Williams (2013) applied the uses and gratifications theory to social media to explain the many and varied reasons why consumers use and like social media. They provide a very rich and comprehensive understanding of why consumers utilize social media and what gratifications they receive from social media, which are: social interaction; information seeking; pass time; entertainment; relaxation; communicator utility; convenience utility; information sharing, and surveillance / knowledge about others.

Businesses and brands that are aware of the effect created by the people who have affected each other are taking part in these platforms and making their own communications. Brand communications made in traditional media with a massive budget can be made on social media platforms both modestly and in a more effective way. Social media platforms enable more and more people participate in this media day by day with applications that make the sharing environment interesting and attractive. Today, social media is an important tool for companies which offers diversity while simplifying interaction with the customer at very low costs by using internet technologies. Social media is an online tool that provides communication, collaboration, and sharing among people, communities, and companies through the internet and technological capabilities. Social media offers opportunities to interact, work, share, socialize, play, learn, buy and sell interactive and interconnected networks (Tuten & Solomon, 2015). Web 2.0, defined as platforms that allow users to generate and share information, documents, audio files, video files, photos and similar images with each other, can be used not only for websites where companies produce content, but also for users to create content, is the technical infrastructure that allows the labeling to be done and value creation pass through the consumer (Berthon, Pitt, Plangger, & Shapiro, 2012). Users who participate in platforms developed by others on the basis of membership express their opinions without being subject to any restrictions and their friends quickly learn their exchanges and interact.

Social media is the web-based technology and mobile media on which people and communities share, create, discuss and present their content through interactive platforms (Kietzman, Hermkens, McCarthy & Silvestre, 2011). The ability to promptly update, analyze and share information which is constantly being updated with the ease of use of social networking sites, such as Facebook, YouTube, Linkedln, Instagram, and other social networking sites such as sharing personal information, pictures, videos, content and profiles, has attracted great interest from users, the numbers have increased day by day and the spreads have been accelerated (Kaplan & Haenlein, 2010). With the new web technologies, it is extremely easy for consumers and businesses to create and publish their own web content (Zarrella, 2010).

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CONTRIBTION OF SOCIAL MEDIA TO MARKETING STRATEGIES

Social media is a platform that all kinds of companies can benefit from. Due to the structural characteristics of social media platforms and their users' positions it has started to be considered as a new communication, marketing, and sales channel for companies. The power of social media is due to the multiplicity and the interaction of the participants. People have never come together in this way and have never interacted with each other before. No idea, ideology, activity or campaign has succeeded in bringing people together in this way. Even people from almost every region of the world who do not have anything in common with each other come together on the same platform. At the same time, these people easily share their common interests, common enjoyment, pleasures, thoughts, and the content they produce. It is very easy for people with common interests find each other, with the various software on the platforms.

The growing popularity and diversity of social networks have created significant opportunities for companies. Social networks are effective communication environments that enable companies to spread their marketing messages, deliver wider product offerings, manage the companies' reputation, build relationships to attract new customers, and make more purchases of existing customers. Nowadays, it is a necessity for brands and institutions exist in social media while companies, brands, institutions and all kinds of internet users interact with each other. With social platforms and other internet applications, there is a constant interaction between companies and consumers, and brands are finding a suitable channel for delivering all the values that make up their corporate identities to the target consumers. With integrated digital platforms, social media platforms provide benefits such as creating brand awareness in the target audience, promoting brand identity, attracting customers to products and services, and managing relationships with customers by the interoperability of digital platforms.

In addition to being present in social media by opening only the profile page for businesses, it develops various marketing tools to create various possibilities at low cost in basic fields such as marketing, sales, brand awareness, customer relationship management, complaint management. For example, to be a part of corporate identity, companies in the Facebook platform can reach to their target segments with customized advertisements, according to gender, age, occupation, education level, income level, geographic region and interests (Schmidt & Ralph, 2011). Social media platforms provide being selective in reaching the target market, directing to the goal and using resources properly.

Social Media as a New Marketing Channel

The important contribution of social media is the opportunity created from a marketing perspective that allows companies to communicate with their target market. Companies prefer to be a strong and well-known brand because competition in products and services does not provide lasting advantages. Companies realize that bringing products and services under the brand name is crucial to be in a competitive marketplace, for this reason, they are struggling to create brands by emphasizing their marketing communications or to put their existing brands in the forefront. To communicate the brand's existence to the target audience, to establish rational and emotional connections between the brand and the target market, and to provide strong reasons for the target consumers to prefer the brand, requires effective communication from multiple channels. It is not an easy process to differentiate between millions of products and services offered on the market and to provide the consumers to aware of the brand.

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Social media emerges as a sophisticated and powerful new marketing channel. Social media tools provide marketers new opportunities for targeting campaigns using profile information, linking community members with social networks within friend groups, systematically developing word of mouth marketing from existing customer base, and as a result, marketing becomes attentive, personal and social. On social networks, advertising and branding objectives are based on personal characteristics such as gender, age, interests of consumers (Shih, 2011).

Today, it is not possible to carry out marketing communication by using just one channel. While using traditional media platforms, also using digital marketing, communication, and social media platforms together are a necessity for companies. This approach is defined as "integrated marketing communication" in the field of marketing. Although consumers are increasingly choosing social media platforms, traditional media tools are still preferred. Even if the influence diminishes over time, there is still more investment in television advertising. Print media advertisements such as newspapers and magazines are still at higher rates. The reason for this is that the transition from traditional media tools to social media tools takes place within a certain period of time. At the same time, some consumers prefer traditional media tools for reasons such as education, culture, and habits. For this reason, it is the right approach to conduct marketing communication, both in coordination with traditional media and social media.

Integrated marketing approach requires all marketing channels to be used in a coordinated way towards the same goal. It is possible that social media platforms and traditional media tools can be associated in many different ways. Such associations are becoming increasingly easier, especially due to the various possibilities of social media tools. For example, an image taken from outdoor advertising to a mobile phone is extremely easy to reach a website or a social media platform. Such multi-channel applications can also increase the power of communication. On the other hand, since small and medium-sized businesses do not have large advertising budgets, they do not have many chances to use traditional channels. It is possible for these businesses to increase brand awareness and customer loyalty by effectively engaging in marketing communications with limited budgets instead of large budget campaigns.

The sharing of the experience of the users who follow each other on the social media platforms, the reporting of the products and services and especially the recommendations of the popular ones and the influential people have led to the concept of "social marketing". For most people, the beliefs of people who trust and share product experiences can provide sympathy and interaction for brands and products. Many people who share content on the social media can quickly post their views and experiences about the products, services, and brands they buy on their own profiles or on the walls of related brands. Social media offer consumers the opportunity to interact with other people and brands without sacrificing any monetary or time cost. Consumers are now active members of brand communities by communicating with brands and expose their opinions and experiences. Today, in the social media communication environment, the control power of the companies is decreasing and the power passes from marketers to consumers (Miller & Lammas, 2011).

Social Media as Information Source

The number of members on social media platforms is expressed in billions. Most users are actively using more than one social media platform. Each of these platforms is used for different purposes and each one works with the different system. These platforms are a unique source of information because of the traces left by every event made in these media. Demographic, psychographic, and behavioral data provide significant easiness for creating marketing strategies and for market research. Qualitative and

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quantitative marketing research on social media platforms can be done much more easily with a small budget. It is a reality that marketing research based on extensive field research is carried out with a great budget. While it is easy to allocate budget for marketing research of large-scale brands, it is difficult for small and medium-sized enterprises to allocate resources and funds for such researches. This situation, which is in favor of large-scale, powerful brands in an increasingly competitive environment, is largely eliminated by market research in social media.

The tools presented for interacting directly with the target audience and the content displayed on social media are important data sources. Marketing research in social media can be done on a modest budget and is a much shorter period of time than traditional marketing research processes. The time spent to identify the population and select the sample of traditional marketing research can be quickly realized in the social media medium. Moreover, each company can conduct research covering all its followers on the social media platform. Businesses can learn simple, fast, and at very low cost through social media tools that can be obtained from market research at a very high cost. Companies are able to learn all the information through social media tools which are simple, fast and very low-cost way instead of traditional marketing researches. In addition, social media platforms have features such as optimizing research processes, adding valuable information and resolve possible mistakes.

Social media platforms accumulate all of their participants' information in a large database. By analyzing the information gathered on the social media platforms, it is possible to make suggestions to each company about the time, age group and the gender group about what content should be advertised. In this way, companies can communicate based on actual market knowledge rather than on insight or prediction. It is very clear that what products and services are offered to the market, which price ranges are attracted by consumers, and which keywords are used. Social media platforms are able to offer market intelligence, at a very low cost, with certainty that keeps businesses from making inaccurate decisions. A brand's position in social networks is one of the specific criteria for estimating sales and general status of a brand. Today, consumers increasingly convey their social relationships to the online world and make comments on brands without any hesitation. Especially young consumers play a big role in brand-product success or failure in comparison with other target segments. Social media channels are a new way of reaching young people (often early adopters, brand ambassadors, trend-setters) and conducting market research on them. With regard to campaigns, feedback is easily gained from social media metrics and it is easy to understand which campaigns are successful and which are not. Social media metrics ensure that the money spent on these platforms is spent most accurately by making precise measurements.

Social Media as a Communication Tool

Social media has become the crucial part of digital communications strategies. Social networks, which initially emerged as environments where individuals socialize, are now an important competitive tool for businesses. Businesses use these channels as a communication platform to reach a larger number of consumers and gain a competitive advantage. For many brands, social networks are the meeting medium with their target consumers. Social networks are now recognized as an important medium for businesses to strengthen their relationships with customers and to introduce their new products. Social networks provide information about the product and establish closer relationships with consumers. Businesses also have the opportunity to advertise their products, to receive feedback and ideas from customers through these tools. Businesses use social media not just for digital advertising, but for customer service, gen-

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erating innovative ideas, and creating brand communities. The content that users generate about brands provides important data for companies and marketers (Smith, Fischer, & Yongjian, 2012).

The increasing number of social media platforms has led to a new marketing communication. More users on these networks and more time they spent on these networks have led to the emergence of new marketing communications. The impact of social media on branding products and services and establishing strong links with brands is indisputable, but recognizing products and services with our senses in the physical world will always preserve its existence and importance. For this reason, it is the best way for brands to use social media in an integrated way with traditional media tools and to increase their influence by providing transitions.

Almost every business has to make a difference in the intensely competitive environment in order to get a mind share, heart share, and market share. And with the awareness of the need to make this difference, companies has to express itself in a holistic approach to all communication channels. Large businesses can express themselves more easily and effectively using mass media tools. In small and medium-sized enterprises, it is difficult to reach the target market because it is not possible to use large, expensive tools like this. Moreover, it is even more difficult for a large number of companies to be chosen from among brands and products, to remain in mind, and to remain in a position that the target segment constantly prefers. For this reason, the work to be done must be accurate, effective, consistent and businesses have to make the right communication from the right channels. There are new opportunities in terms of businesses that use the rich possibilities of social media platforms in brand communication. Sharing audio and video files to the target consumers by generating the desired length and number is an important support for effective communication. Not only the social media pages, but also brands that strengthen their presence in blogs with audio and videos have the chance to say that they want to announce their target consumers in a variety of ways. Moreover, with the awareness that they can be reached as many digital platforms as possible, brands are going to diversify their content in social media. Especially high-tech products, technically complex products and services, business areas that require constant up-to-date information, contribute to enhancing brand awareness by providing content. The contents also have important functions in terms of feedback from the customers. Customers are turning to social media platforms to unleash their frustration or questions. 78% of people who complain to a brand via Twitter expect a response within an hour (Hainla, 2018). In terms of companies and brands, Twitter provides important contributions as a communication and interaction platform. It is possible to take advantage of Twitter in the areas of marketing communications such as branding, brand awareness, and brand extension due to instant messaging, updating, short comments on current topics and easy sharing interface that is easily accessible from all mobile devices (Ye, Fang, He, & Hsieh, 2012). Twitter also makes great contributions when launching of brands, announcements of changes in products and services, advertising campaigns, contests, slogans, logo selection, and gathering of consumer opinions.

Instagram has become a powerful platform for marketers and its potential cannot be overlooked any longer. Top brands on Instagram are seeing a per-follower engagement rate of 4.21%, which is 58 times higher than on Facebook and 120 times higher than on Twitter. 41% of marketers have used Instagram video and 44% plan to use Instagram video 90% of Instagram users are younger than 35. Instagram has become the social media network for targeting Millennials. 32% of teenagers consider Instagram to be the most important social network. Instagram Stories have helped to increase the amount of time people spend on this network, according to Instagram. Users under 25 years old spend more than 32 minutes a day on the platform, while those over 25 spend more than 24 minutes a day. People use Instagram as a way to follow their interests. This, leads to opportunities for everyone from global brands to local

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enterprises to reach and engage with their customers while they're diving deeper into their interests. Marketers are rapidly increasing their adoption of Instagram to promote everything from clothing to concerts. Instagram's latest internal figures show 25 million businesses have a business profile on the network, and over 200 million users visit at least one business profile every day (Mathison, 2018).

Interactive Communication Using Social Media

Social media is an important tool as a platform by which consumers can express their concerns on any issue, and can talk about their problems in any matter and also report the faults and deficiencies at the same time (Krishna, Dangayach, & Jain, 2011). The most fundamental feature of social media platforms, which are constantly growing, updating, evolving and open to all, is the continuous interaction between users because of the technologies and methods used. Social media is a platform where users can coexist, share, and act together, make suggestions, see, interpret, and create collective opinions and ideas. Social media tools have the power to create a common power of ideas and ideas among businesses, even among individuals with different knowledge (Jue, Marr, & Kassotakis, 2010).

Interaction on social media platforms is essential. Interaction is a structure that supports every kind of interaction between people, between people and institutions, between people and businesses. Interaction is the most important diversity of social media. The diverse sharing among consumers makes social media more common and more effective. Social media is sophisticated, allowing everyone to participate and spread it online. End-users form, create, shape and share content with this participatory nature of social media (Akar, 2011). As a new interactive channel, social media is a far more effective and useful medium than traditional media. For any business, the interactions that will take place in this media are the interactions directly related to the main subject. For example, it is very easy to learn from social media, which products will be produced, how the products will be designed, which colors will be preferred, and which products are not preferred.

As social media platforms use systems that support simultaneous communication, members and users can make simultaneous voice and video calls between themselves. This feature distinguishes social media platforms from traditional communication tools and provides significant advantages. A commercial message sent from social media platforms is instantly seen by the members participating on the platform, and when the members are interested in the message, with this interest interaction occurs. Interaction presents an important advantage for brand managers in their word of mouth communication. In this media, users who share the same interests, pleasures and feelings inform and advise each other about the messages coming from the brands. As a result of this, communication activities are more effective and successful. Social media platforms have changed consumers' behavior of searching, finding, reading, sharing and consuming information in a high incidence of information and contents which are positive or negative about products, services, brands and places and will continue to change depending on the development of social media platforms (Ye, Law, Gu & Chen, 2011).

There are various consequences of social media communication being rich in content, being continuous and effective. Users who come together on various platforms in social media are influencing each other and this is also reflected in their behavior. The information that a user posts, exhibit attitude about brand preferences, shopping habits, fashion, and trends. Interactions that take place in the social media can mobilize organizations, civil society institutions and create behavioral changes. As an interaction platform, all businesses need to establish their social media accounts and create awareness in this area. Businesses that do not need interaction with the customer should also take their place in these platforms

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in order to control the negative communications that may occur in these media and to communicate with the target consumers when required. Social media platforms are the most effective communication area in case of a crisis that may occur for any reason.

Content Creation and Content Sharing

Social media is based on content produced by users. Social media is also defined as the media created by the consumers. Social media; the recommendation or sharing of content, the criticism, and evaluation of products, services and brands, the discussion of popular topics of the day, the hobbies, the pursuit of interests, the sharing of expertise and experiences (Ryan & Jones, 2008).

Consumers who have a means of communication at all times of the day are constantly watching the developments in social media and have the chance to upload the content they produce in this domain. This opportunity has brought all users to the position of producing content for social media. The users who have posted their developments, news, interesting events, photos and videos to social media have moved from a simple consumer position to a different profile. Moreover, these posts are also seen by other consumers, create a significant content collection. The meaning of this content makes it possible to determine the interests of the users, their conversations, their pleasures, their likes. Businesses seeking to benefit from social media need to conceptualize and act accordingly. Sharing of text, audio, video, photographs and similar materials produced by users is essential. This content, which grows rapidly at almost every day, is being watched and reshared by different users. Comments, tags, and attachments made during sharing provide social media growth. The value of the platforms prepared for users to create and share content is increased by the number of members and content generated by the users. The platform's function is to provide quick and easy access by loading the loaded content with a specific algorithm. There are millions of different content on each social media platform. Structural and emotional links between users enrich the content of social media and the added value created by users is the power of social media. Users are able to access information in an easy and detailed way that they can not reach elsewhere with the content they create and share on social media platforms (Kushin & Yamamoto, 2010).

In social media, it is also important to create content that attracts the attention of the target consumers. Despite the advantages of social media platforms such as cost, speed, ease, and simplicity, a professional effort is necessary to create content and create interaction to draw interest of the target market. For this reason, businesses have to be careful to create an up-to-date, remarkable content policy on social media platforms.

It is imperative for brands to create powerful campaigns with creative content on social media to gain the trust of consumers and to drive sales. For example, beautiful food photos and recipes are at the core of Whole Foods. Users can browse seasonal recipes, Instagram food photos from other Whole Foods shoppers, and tips for healthy eating and smarter shopping. Whole Foods knows that by presenting users with useful, compelling content, they'll inspire visitors to shop – even if they don't explicitly tell them to do so. On Instagram (1.8 million followers), they'll post beautiful food photos from users, but rarely promote their own products or deals. Whole Foods is also a prolific video creator who updates its YouTube channel (53K followers) nearly every week. They have series on cooking how-tos, food trends, recipes, sourcing, and more. In addition to providing existing customers with inspiration, Whole Foods is creating content that will be surfaced in search when people look for recipes or cooking tips. This inspire existing customers to shop for ingredients – and introduce the brand to other potential customers (Eng, 2017).

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Tracking Comments

Any kind of content shared on social media platforms is open to interpretation. Positive or negative comments increase interaction and turn into social media debates. Since the participants write their own ideas during interpretation, after a certain period of time comprehensive feedback accumulate under any content. Comments provide valuable information to companies or brands at least as much as obtained from comprehensive market research. Today, many brands use social media accounts and users' comments as an opportunity to improve their products, processes, and communication.

Social media platforms are places where brands do not have one-way communication and where customers have the opportunity to talk, comment and interact. In other words, brands have started to talk to their customers. The content of the conversation involves all kinds of customer information that brands need. Consumers review a wide variety of social media tools in their purchasing decisions. Consumers move away from traditional communication sources and perceive social media as a more reliable source of information. For this reason, the more the brands talk and engage with customers in social media, consumer interest in products and services much more (Mangold & Faulds, 2009).

Businesses take part with Facebook, which is one of the important tools of social media, with their corporate identities, make promotions of their products and brands, create pages and reach a large number of potential customers and manage their products more effectively by taking their opinions and comments. Twitter is an important business channel that allows companies to engage directly with their customers, partners and other stakeholders, both individually and globally. Through Twitter, businesses follow what consumers think about products, respond to customer requests, communicate with shareholders, and earn money with various creative, different advertisements. Celebrities and politicians are also in touch with their fans and voters in this new way (Tuncer, Özata, Akar & Öztürk, 2013). Twitter, which brings consumers together with brands and enables brands to express themselves in a more sincere way, enables them to follow and participate in creative tweets of brands, their dialogue with consumers and other brands. The important feature of Twitter is that it is very easy to create a brand-community in a very short time. If used correctly, the main advantage of Twitter among social media platforms is delivering messages directly to the large audience at low cost.

Building Brand Community

Social media is an efficient platform to build, grow and maintain a brand community. Brands use social media tools to maintain their relationships and engage consumers with their brands (Yan, 2011). Social media not only increases the communication power of the consumers, but also increases the communication power of the brands day by day. Social media platforms offer many opportunities to brands such as interacting with consumers, exchanging information, providing feedback about brand developments. Social media is also an interactive, personal and sensitive environment for brands (Jothi, Neelamalar & Prasad, 2011). Brands need to be found on different social media platforms with corporate identities and use social media as part of their integrated marketing communications.

Businesses are trying to increase their brand awareness, gain new customers and profit by using social media applications like Facebook, Twitter, Instagram, YouTube (Kaplan & Haenlein, 2010). It is a fact that social media is a more difficult medium than the traditional media in terms of marketing communication in the intensely competitive environment created by millions of products and services offered by many substantial companies in the market. The messages that are received and spread in this

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media are not under the control of the brands. Users share their love, likes, and tales about the brands they are watching, sharing and spreading their opinions on various topics. Users easily talk, share, and spread their ideas about the brands they love, like, follow up on these platforms. One of the main problems for marketers is to establish emotional, cognitive and structural connections with the target consumers. Messages sent from traditional media channels are not enough to establish emotional bonds and connections with consumers. Traditional media is in the form of monologue because it is a one-way communication, interaction does not take place. Today's brands will fulfill expectations as much as they listen and monitor customers. In this sense, social media is a platform where brands listen to their customers. Businesses that listen and respond consumers gain a customer oriented organization identity by allowing their customers to direct themselves. In social media, online brand communities should be built and users should be actively involved in these communities. It is important to establish long-lasting relationships between brands and users, taking into account factors such as trust, continuity, interaction, and communication (Casalo, Flavian & Guinaliu, 2010).

Social media is the easiest and most cost-effective community creation platforms. At this point, businesses need to converge in listening than talking on social media platforms. It is possible to create a large participatory community with the interaction that will be created after learning what the target group is talking about, which topics to share, which trends to follow. The most important achievement on these platforms is constant interaction with a large mass of followers of the brand. Twitter offers a variety of facilitating solutions for small and medium-sized businesses that cannot achieve results through traditional marketing tools and processes in a highly competitive environment. Twitter can also be used to direct traffic to other social media platforms or web pages of a brand and create brand communities.

Collaboration through Social Media

Businesses are leveraging technology and social media to adapt to changes. Social media enables collaboration using a variety of applications. Social media, like all other digital platforms, is a platform where collaboration is intense. Co-operation and congruity represent the basic features of social media. It is possible to carry out large-scale events in a short period of time through collaborations that are created, shared and maintained in a short time among users. In addition to the activities performed by the users, there are many examples that can be reached to millions of users in cooperation with the content requested to share quickly. Especially in social awareness, political advocacy, social media events are important examples and opportunities for brands.

Any unexpected situation, brands and companies directly reach out to the consumers via social media tools and deliver the right information about the subject, thus preserving their corporate reputation. Today, many businesses are sharing a variety of information, innovation, and news with blogs. Many businesses around the world use blogs to interact with their target audience, listen to them and provide feedback. Blogs are an important means for the companies to communicate directly with their customers and to create collaboration. The companies ask consumers about their opinion about the products and services that are thought to be offered to the market. Blogs that users share about their own ideas and interests are also used by brands to advertise their target groups and to raise awareness. The software giant Microsoft is implementing new product developments based on feedback from corporate blogs. Besides, brands and companies can also use social media as an effective medium to remove the negative effects of negative communication that may occur in brands, products and etc.

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Social Media as a Sales Channel

In addition to customer interaction, brand communication, information gathering, content creation and sharing, social media also used as a sales channel. Social media, which is the common point of millions of users, is a medium where sales of various products and services can easily be done. Most businesses have begun selling their products from sites they've established via social media accounts. Sales opportunities are frequently seen in different sectors such as the service sector, the fast-moving consumer goods sector, and the real estate sector.

It is also said that social media platforms are a function of supporting sales rather than generating direct sales. Customers who are directed to the landing page of the business from the social media platform are closer to purchasing with the effect created by the social media comments and interactions. Because of the effects that social media have on sales, directly and indirectly, brands are going to organize campaigns that will turn marketing communication into sales. Million dollar television commercials are no longer the primary factor affecting the intent to buy. The comments of consumers who use and experience products and services on social media now substitute for traditional communication media and channels (Qualman, 2013). Numerous companies in the fields of tourism, education, apparel, software and consumer electronics are actively participating in social media platforms and especially on Facebook and Instagram direct sales examples are frequently encountered.

Social Commerce

The increase in the number and type of social media platforms, the addition of more and more participants to these platforms is causing commercial activities on social media. The concept of "social commerce" has begun to evolve with the evaluation of e-commerce sites' interactions among users in social media platforms. As e-commerce sites began to use social media platforms effectively, e-commerce and social media platforms have emerged in the form of collaborative work. The concept of social trade refers to e-commerce transactions through social networks. This concept, which emerges due to the influence of social networking, decision-making mechanisms, has a different meaning due to the existence of a large number of different users who are influential in a user's purchasing process.

By using social networks effectively, e-commerce firms can easily reach the target consumers and find the opportunity to benefit from the interaction and to sell in this way. Businesses are using social media platforms increasingly for commercial purposes every day in favor of new methods developed by these platforms. The main goal of businesses is to convert the social media user into a customer. Social media platforms, which are not only focused on brand awareness and corporate reputation, but also function as a commercial platform, are partnering with e-commerce sites more and more each day. Through social media, it is possible to have privileges such as giving special discounts to consumers, individualize special campaigns, interacting with business and other consumers (Clark & Melancon, 2013).

Conversations, comments, shares, suggestions, complaints, and evaluations about products and services on social media platforms are actively engaging consumers. Consumers often make purchases by being influenced by the users they follow on their social media platforms or from the recommendations of their contacts and their purchasing decisions. Users who follow the brand accounts on social networking sites receive notifications from these channels and share them with other users. Facebook, Twitter, and Instagram provide important opportunities for users to keep each other informed. At the same time, these platforms offer diversified and effective ways of finding, discovering and examining new products that

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attract the attention of users. Users talk about their favorite products and brands, voluntarily advertise them, and often act as a purchasing consultant. Users who ask their friends in social media what they want to learn about a product or service take action by receiving suggestions from others.

Measurability of Social Media

One of the most important facets of social media is measurability. Measuring and monitoring consumers and trends are a priority for marketing strategies which could increase brand awareness, market share or revenues. Social media offers opportunities to acquire customer profile information, especially to identify potential customers. Through social media, information about users' preferences such as brand, product, service, political view, etc. can be collected easily and then it is possible to make personalized targeting to the customers in the frame of this information (Dam & Velden, 2015). The measurement is based on precise tracks of the members of the platform. For instance, measurements based on precise figures can be made on detailed topics such as how many members are on each platform, time of participation in the platform, the number of content produced, the content liked or disliked and followers. In addition, it is possible to determine exactly how far an advertisement message delivered from any social media platform has reached the target consumers, which members see this advertisement message, who responds to this message, who generates the content about this message, and which members share this message with others. Moreover, this measurement can be done by location, place and time dimension. It is also possible to learn and know at what time zone and in which geographical domain the target consumers respond.

Users' comments, feedbacks, interpretation they leave on websites, posts, Facebook likes, share numbers, Twitter messages, videos uploaded to YouTube provide important research interest for businesses. The social CRM system- that can be used to recognize both substantial and potential customers- needs to be restructured in order to be monitored, analyzed and find its direction (Karahasan, 2012). Increasing interaction with social media platforms has resulted in customer data that has accumulated on these platforms to reach a very large size. If this interaction is expected to increase further in the forthcoming years, businesses and brands that embrace more customer profiles with strategies customized to these platforms will face tremendous potential.

The monitoring and tracking people, institutions, products, competitors in the social media and analyzing the interactions in these platforms will ensure that significant information for companies and brands. The target group determination process can be performed easily with this valuable data. Because it is necessary to develop a different communication and interaction strategies for each platform by following diverse behaviors in different platforms, with the help of these analyzes it is possible to understand the expectations, wants and needs of the target consumers. An easily measurability feature of social media events allows businesses to reach their target groups effectively without the need for large advertising budgets.

Social Media as a Creative and Effective Advertising Tool

Social media platforms are considered as effective advertising media. Social media, which millions of users subscribe voluntarily, not being used as an advertising platform can be a significant loss for businesses. It is more difficult to advertise in social media than traditional channels, where control is entirely at the users. In today's competitive environment, any kind of business, especially small and medium-sized businesses, must take advantage of the opportunities available on social media platforms.

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When it is used in an integrated way with traditional media tools, social media platforms offer a wide range of opportunities as a new communication channel with different structures and different contents. Social media advertising has been growing in parallel with the emergence of these platforms in recent years and increasing day by day. Advertising on social media platforms requires a different process than traditional media tools. Unlike communication with mass advertising tools, the target consumers, segment, content, and interaction of the ads on social media platforms must be well planned and estimated in advance. Since social media platforms are enriched with diverse technologies almost every day, different advertising methods and techniques are applied and a new type of advertising is emerging swiftly. Essentially, advertising on social media platforms involves placing the ad on or around the content and being part of the content. Almost every social media platform has its own advertising format. In addition, when other digital channels are integrated as an advertising channel, the awareness of the brand on social media platforms increases.

On social media platforms, users are consistently talking about businesses, brands, people, events, and products. Conversations about any brand or product lead to intensive interaction with users and lead to intensive interaction. This phenomenon creates a new type of advertising. Advertising agencies specify which products are being spoken at what intensity and how intense are the conversations. In parallel with this, important and effective advertising tools can be determined. In this way, advertisers place banners on blogs or forums where users talk about the products and install banners in the areas next to their conversations. For example, a holiday resort operator may place banners on blogs or forums that have related user conversation spots on holiday plan or identify the blogs that most overlap with brand identity and target consumers. These services are very fast and detailed, varying according to processes and technology. Some agencies also specialize in finding the most effective users, not just the most relevant user conversations.

Video sharing on social media platforms is also very common. Increasingly more and more brands and users are sharing videos. These videos are watched with interest by other users, for this reason, videos are considered an effective advertising platform. Publishers and marketing communicators look for ways to place ads on video content created by users and find ways to use them. While pre-roll video advertising is prevalent before the video itself, YouTube and some similar sites still prefer to use overlay video ads. Ads make video watching difficult and annoy consumers. Due to these reasons, measures are taken such as keeping ads short, cutting the ad after cutting some part of the ads, or adding the option to skip. In addition, these platforms can also provide important metrics to find out which ads are liked, which ads are cut in half, and which ads are being watched several times by the same users.

Brands are creating different platforms for talking, entertaining, educating and creating brand loyalty by bringing users together using interesting content, games, surveys, puzzles and contests and similar activities to create their own social media communities. In this method, off-site advertising, users directed to specific communities where they can share valuable or interesting content they can join. Thus, users are given the opportunity to see themselves as a part of the brand and these platforms establish a deep relationship between the brand and identity/personality.

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SOLUTIONS AND RECOMMENDATIONS

Today, a substantial portion of customers and leads are on social. Social media provide an opportunity for the consumers to access the company, reach new contents and click through to the website easily. Social media platforms offer highly targeted communication and content, which can be customized around customers' needs. Therefore, it can be said that companies should focus on the strategies to increase engagement and interaction with their target consumers. With the help of different kinds of social media platforms and tools, it will be possible to improve connection, communication and brand loyalty. Social media plays a bigger role in influencing brand perception. It is obvious that brands with active social media profiles have more loyal customers. Consequently, companies and brands should create appropriate social media strategies to generate the company or brand profile, improve public image, increase brand the sales.

FUTURE RESEARCH DIRECTIONS

In this study, it is broadly focused on the significance of social media platforms in marketing decisions and strategies. Technological and innovative changes and developments are evaluated in terms of social media marketing. Social media generates opportunities for strategic marketing and management actions. Main concepts between marketing decisions and social platforms are discussed in this book chapter. Different studies that will examine how social media will evolve and how it will be used in different markets and different sectors will also contribute to the literature.

CONCLUSION

The changes in the digital world raise interest in social media platforms and there is increasingly more engagement. Social media serves to a brand's and company's marketing plan as part of integrated marketing communications. Increasing brand recognition and corporate reputation and enhancing corporate image are the fundamental objectives of social media marketing and they serve for the purpose of increasing product and service sale. Companies can share their information related to themselves and their products with their target customers directly without public relations experts and communication agents. From this perspective, it can be said that companies' dependency on third parties with their marketing activities decreased.

All activities on social media platforms are done to increase the company's sales, market share, and profit. With this purpose, if the company serves through traditional distribution channels, communication on their social media platforms should have the purpose of leading target customers to companies' sales points. If the company has an online selling channel on the internet and the company is an e-commerce company, social media platforms should have the purpose of creating traffic to the company's e-commerce website. Social media is not only a brand communication, sales, and marketing platform, but also a platform for public relations and corporate reputation management. Therefore, every company should create social media accounts and start their presence on social media even to protect their corporate and

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brand name on social media. Social media activities can be seen and shared by target customers of the company and the other customers by nature. The voice of customers on social media should have listened.

Companies should set their objectives and plan their social media activities for the suitable target customers. Every company and brand should analyze their own target customers, calculate the risks on the related platform and build an engagement policy. In the future, it is expected that competition will be in these areas and therefore analyzing target customers is an important step to hinder negative propaganda that can be made by rivals who want to damage company and brand by using these platforms. It is important to know target customers' behavior, habits, the things they follow, the events and facts they criticize, their demographic and psychographic features in detail. Time spent on social media is very valuable and data gained from engagement leads strategies of companies and there is a need to be close to a user in brand management. Therefore, engagement, information flow, communication, and data should be well analyzed.

It is a fact that social media activities preferred more day by day. Interest in social media is increasing since these platforms are easy to use and effective campaigns can be created with low budgets. Social media has become essential for brands in order to create closer touch points with customers and to become proactive in the marketplace. Social media provides brands a new way to communicate with their consumers, offers a way of interaction that has previously not existed. Since the new competition is on digital platforms, every form of companies should build an effective social media strategy.

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KEY TERMS AND DEFINITIONS

Brand Community: It refers to a community that formed on the basis of attachment to a product or brand and built upon shared values, common interest, and connections.

Content Marketing: It refers to creating content that builds a long-term relationship with the target market.

Conversion: It refers to any action on the websites or social media platforms.

Engagement: It is the metric that measures the reactions of users on social platforms and allows companies to see how consumers use, talk, and share content about brands.

Social Commerce: A form of e-commerce that uses social media and social networks.

Social Media: It refers to the internet technology that enables the creation and sharing of ideas and information and the building of virtual communities, networks, and relations.

Social Media Advertising: A kind of online advertising via social media.

Social Media Marketing: It refers to the process of marketing through the use of social media platforms.

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Chapter 19
Marketing Management in Digital Marketing and Consumer Behaviour Context

Fatih Pinarbasi
Istanbul Medipol University, Turkey

ABSTRACT

Managerial thinking in marketing management requires holistic perspective for understanding and interpreting issues and trends in marketing environment. Technology plays a key role in business related issues and the effects of it can be seen in digital marketing concept. On the other hand, consumer behavior is always popular because of the nature of concept. In today's world consumer-brand relationship can be consumer-driven or brand-driven. So, this combination creates a dual structure which can help for a holistic perspective. The aim of this chapter is examining marketing management in two perspectives: digital marketing and consumer behavior. Literature review is used in this study to examine current literature in three different contexts. These contexts refer to specific areas in marketing management and they address two perspectives used in this study. All contexts have descriptive information and selected studies. This study highlights main topics in the contexts and provides a holistic perspective for marketing management.

INTRODUCTION

Managerial thinking requires integrated perspective which combines current/contemporary issues and past issues together. After reviewing and examining different issues from different concepts and contexts, challenges and problems could be detected. This detection is the key for the new ideas, new solutions and new innovations. Main point is having an integrated perspective about what was happening and what can be done.

Marketing concept is a component of management in business. Market structures, consumer behaviours, technological advancements affect people, businesses and world. This complex structure has potential opportunities and gaps inside. As time passes, lots of changes take place in business world and these changes affect each other. Traditional channels and perspective could be affected by new challenges. The effect of sharing economy on hotel industry (Zervas Proserpio, & Byers, 2017) was one of them.

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Beyond the business side of marketing, consumer side has also changes. Consumers have been influenced by social media and web channels, therefore new research areas occur due to dynamics of social media and web. Retargeting and online advertising (Lambrecht & Tucker, 2013), seeding strategies for viral marketing (Hinz, Skiera, Barrot, & Becker, 2011), competitive local targeting about mobile promotions (Fong, Fang & Luo, 2015) are some of the new applications of marketing environment targeting both consumer and company sides.

Digital marketing is selected for business and platform sides of marketing management. Digital marketing is an umbrella term including web, social media, mobile etc. Consumer behaviour is selected for consumer side of marketing management. Because consumer is at the center of marketing.

With integration of two sides of marketing, the aim of this study is examining marketing management issues in a two-side perspectives and with three context structure. These contexts are website and search engine context, mobile marketing and new technologies context, social media and email marketing context. Website context includes website, online reviews and search engine concepts. Mobile and new technology context refers to technological side of marketing. Mobile is important as it is widespread among people. Technology matters because of its effects on other concepts. For example as technology develops, concepts like research in marketing discipline are being affected. Data collection is one of important topics in marketing area. Goodman and Paolacci (2017) studied data collection concept by new technologies and crowdsourcing concept. They assessed the reliability of data collection by crowdsourced populations. Last context, social media and email marketing refers to sharing side of consumers. Consumers use social media and share their lives with other people. This spreading activity matters for both consumer and business side.

The study starts with summary information about concepts, digital marketing and consumer behaviour. General information about contexts and selected studies for each context follow these sections. Finally suggestions for future research and conclusion sections are discussed.

DIGITAL MARKETING CONCEPT

What is Digital Marketing?

Digital marketing, as Kannan and Li (2017) defined, is a process which companies colloborate with customers and partners to jointly deliver, create, communicate and sustain value for all stakeholders. This process has an adaptive and technology-enabled nature. Parsons et al. (1998) concluded digital marketing as two activities. One of them was about using new interactive media for creating new forms of interactions and transactions between marketers and consumers. Second was about integrating interactive media with other marketing mix elements.

At this stage it is important to remember marketing mix elements, also known as 4P of marketing; product, price, promotion and place. The question refers to how digital concepts affect traditional marketing mix elements. For example how "product" would be affected by digital concepts? Software as a service concept could be one of this example. For the "price" element of marketing mix, the change could be seen at dynamic pricing applications in online marketplaces. For the "promotion" element of marketing mix, it could be seen in new ways of promoting product/services in social media, mobile marketing etc. Lastly "place" element of marketing mix could be mostly affected by digital advancements.

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As distribution and reachability of information/product/services grow, marketing communication will have better chances.

From the business side changes in nature of marketing by digital advancements are important, but this is also valid for consumer side. As brands change the way they "push" marketing information, consumers are affected by both brands, marketing environment and each others.

Web 2.0 Concept

The effect of digital technologies on consumers can be explained well with Web 2.0 concept. O'reilly (2005) concluded differences between Web 1.0 and Web 2.0 concepts. Some principles of Web 2.0 were; network effects from user contributions were crucial for market dominance, services automatically got better when more people use it, leveraging customer self-service and algorithmic data management to reach out entire web was important. It symbolizes a transition from old web paradigm.

Reviews Related to Digital Marketing

The topic of digital marketing has been worked on issues related to internet marketing and technology. There are some reviews studies examining digital marketing and related terms. One of early examples of this type of review is Ngai (2003)'s study on internet marketing research. Ngai(2003) examined 270 articles and classified them into five distinct categories; Internet marketing environment, Internet marketing functions, Internet marketing research, special Internet marketing applciations and other topics. Lamberton and Stephen (2016) studied digital marketing with social media marketing and mobile marketing. They identified key themes in time period between 2000-2015 years. Stephen (2016) examined digital and social media marketing in consumer behavior context. Five themes were identified in study; consumer digital culture, effects of digital environments on consumer behavior, mobile environments, online word of mouth and responses to digital advertising. Kannan and Li (2017) studied digital marketing and presented a framework for research. They concluded five topics for digital technologies and marketing environment; consumer behavior, social media and user-generated content, search engines, contextual interactions and platforms and two-sided markets.

CONSUMER BEHAVIOUR CONCEPT

The other part to be used in this study in the review of marketing management is the concept of consumer behavior. Consumer behavior refers to the part of the marketing activities that is generally affected. However, in today's market, the consumer is both influenced and influencing. Three sides will be used for consumer behaviour concept; individual, business and research sides.

Individual Side of Consumer Behaviour Concept

The presence of consumers in digital and social media is important for both marketing science and industry. As consumers witness changes in their daily lives by technology, their attitudes and behaviors are being affected. In today's world, people can share their vacations on Instagram, write to their friends on Facebook, send daily stories to Snapchat or Instagram tos hare their lives.

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Beyond the atittudes and behaviors of consumers, it is important to examine how they perceive digital marketing efforts. This topic combines both individual and business sides of this concept. There are two sides; one is receiver who get the messages and interpret, other one is sending. Smith (2011) examined digital marketing studies with millennials context and concluded some implications like; they did not like pop-up advertising, their attention was mostly related to graphics, they would repeatedly visit website if website offered competitive prices and good shipping rates.

On the other hand, self and identity are important topics in individual side of consumer behavior. In consumer research one of the important topics is extended self topic. Belk(1988) concluded that possessions were major contributor for identities and they were also reflectors of identities. According to author; possessions make people learn and define theirselves, and remind them about who they are. Alsoaccummulated possessions provide a sense of past. They also tell people about their selves; who they are, where they come and perhaps where they are going.

After years passed Belk (2013) studied extended self in digital world context. He concluded five changes emerged from digital advancements/digital age. These are dematerialization, sharing, co-construction of self, distributed memory and reembodiment. Dematerialization was referred to “disappearing” of possesions in digital world. This “disappearing” symbolizes formats of our possessions, for example old records, CDs and DVDs are stored in digital storages. Sharingwas referred to helping of digital devices to sharing activity of people in terms of speed and broadness. Co-construction of self was referred to social structure of digital age, which contributes to construction of identity. Distributed memory was referred to distribution of digital objects related to personal memories. Lastly reembodiment was referred to affecting of avatars to offline self and multiplicity of selves.

Business Side of Consumer Behaviour Concept

Apart from individual side of consumer behavior, brand/business related side also matters in digital environments. The interactions of consumers with brands cause different stages of relationship, like brand awareness, brand familiarity, brand loyalty, brand advocacy. Therefore the stages of this relationship and their motivations, antecedents and consequences must be always taken consideration.

On the other hand in digital environment, according to Kannan and Li (2017), customers gather information from search engines, read others’ reviews. Customers could start first purchase just bu seeing a post on social network. So decision journey in digital environment has fundamentally new ways. Therefore business/brands must consider these new ways.

Research Side of Consumer Behaviour Concept

Consumer behavior researches are influenced by technological developments. For example Shi et al. (2012) used eye tracking method in their study which examining information acquisition during online decision making.Tirunillai and Tellis (2014) used unsupervised latent dirichlet allocation and worked onuser generated content which consisted of product reviews. This type of content and mining of them could reveal meaning behind of reviews like satisfaction or dissatisfaction.

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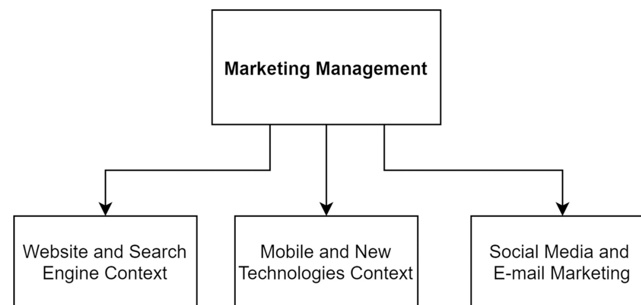
Figure 1. Contexts in Study



MARKETING MANAGEMENT IN DIGITAL MARKETING AND BEHAVIOUR CONTEXT

The increasing of consuming passion with growing of technology is an important issue in marketing (Kozinets, Patterson, Ashman, Dahl, & Thompson, 2017). It is important to understand changing of consumer related processes to understand impact of digital technogies (Kannan & Li, 2017). Therefore this study combines digital marketing and consumer behaviour concepts to understand marketing management. Three contexts are used in this study to examine topics and studies in marketing environment. These are website/digital advetising/ search engine, mobile and new technologies, social media and e-mail marketing.

First context includes website and search engine concepts together. This context mostly refers to main part of digital marketing. Second context refers to mobile and new technologies together. This context mostly related to advancements in recent year. Last context includes social media and e-mail marketing concepts. This context mostly refers to consumer side of marketing management which implies sharing and interacting mostly.

Altough there are three contexts selected in this study to examine digital marketing and consumer behaviour, the borders between contexts are not fixed, as some studies and topics can include and affect each other. In one example study, Hamari and Koivisto (2015) studied gamification topic in technology context with social effects in social media context. Moroet al. (2016) studied performance metrics of social media with data mining approach.

Website and Search Engine Context

Website and search engine topics, in general "internet" is important concept for digital marketing studies and digital marketing environment. According to We Are Social (2018), there are 7.593 billion people living in world and 4.021 billion of them are internet users, this refers to %53 penetration rate.

Websites are main brand asset in marketing management digital dimension. Although there are additional online brand assets like social media pages, it is still important as an identity object for brands.

One of the question in website related decision making relates to reason of users visiting website. Why and how people visits/reaches website is important. From traditional marketing channels to digital practices, from social media to other channels, all could have different motivations for consumers. Pallant et al. (2017) examined influencing factors for visit types of retail website. They concluded that type

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of visit was influenced by consumers' purchase history with the brand, marketing channels, consumers' visit history with the brand.

One of topics in website context is online ratings/reviews as they could influence consumers' decision making process. Online reviews/ratings concept is studied in different perspectives including; as balance (of positive/negative online reviews) and sequence perspective (Purnawirawan, De Pelsmacker, & Dens, 2012), response strategy and its effects perspective (Lui, Bartosiak, Piccoli, & Sadhya, 2018), credibility and purchase decision (Jiménez & Mendoza, 2013).

Search engine context is another important context for marketing management. Search engines let customers to have free information about products/services and learn firms/brands according to search criteria (Kannan & Li, 2017). As search engines have a key role for information searching, the application of search engine activities by brands and the reactions of consumers are good sources for marketing management decision making. According to common usage of search engines, some concepts like search engine rankings, organic reach became important. If any customer who does not know anything about brand X, searches for the product or service he/she needs and does not find the brand X in first page, or even in first three-five results, brand X has a lot things to do for digital marketing success. Pan (2015) studied search engine topic with search engine rankings in tourism context. According to study, high rankings were necessary but they were not a sufficient condition, as many top ranked results had low clickthrough rates. The author concluded that competing on niche keywords was a key for succes in search engine marketing. Dotson et al. (2017) studied brand side in search engine context. Their study included some useful conclusions about consumers and their search behaviour related to brands. For example they concluded that users who were actively shopping in a category were more likely to do search for brands in that category. Users who owned a specific brand were more likely to do search for that brand, even they were not shopping actively.

Mobile and New Technologies Context

One of the important contexts of digital marketing is the technology context. In this work, the technology context will be discussed in two parts as mobile marketing and new technologies.Mobile marketing, according to Kaplan (2012), was defined as any marketing activity carried on at a ubiquitous network. This network included consumers who were connected constantly with personal mobile devices. Mobile marketing area is one of technology related areas in marketing researches. According to We Are Social (2018) there are 5.135 billion unique mobile users in world and this refers to 68% penetration rate. While mobile devices are part of daily lives, marketing in mobile context is important for marketing management.

For consumer side of mobile marketing, it is important to examine engagement in mobile apps. Kim and Baek (2018) studied antecedents and consequences of mobile app engagement and concluded antecetends as interactivity, time convenience and compatibility; while concluded consequences as strong relationship commitment and self-brand connections. Therefore this conclusion could be a start point for a marketing manager/decision marker to plan a mobile application implementation. As sector specific information increases, the decisions would be better.

For business side of mobile marketing, Berman (2016) suggested using three advatanges of mobile marketing. First advantage refers to being always connected to consumer, as the nature of mobile marketing devices relates to always being on. Second advantage refers to ability of creating location-sensitive offers. Last advantage refers to ability of offering highly personalized mobile marketing messages.

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Table 1. Selected Studies for Website and Search Engine Context

Author	Date	Topic	Summary
Chiu et al.	2014	Repeat purchase intention in B2C e-commerce	Utilitarian values, hedonic values and perceived risk were examined with repeat purchase intention. According to results, both hedonic and utilitarian values were positively related to repurchase intention.
de Langhe et al.	2016	Online user ratings	A dataset including 1272 products in 120 product categories was used to asses validity of online user ratings in consumer context. According to results consumers relied on average rating rather than other cues. There was a disconnectedness between objective quality information and the extent to which consumers trust them as indicators of objective quality.
Jerath et al.	2014	Click behavior at a Search Engine	Clicking behaviour of consumers at search engine was assessed in keyword popularity context. Results concluded that less popular keywords were leading consumers to make more effort for information. This could be used by marketing management as these consumers were more likely to be good fit for sponsored search advertising.
Bilgihan and Bujisic	2015	Website features and online relationship marketing	Online hotel booking context was used for this study, utilitarian and hedonic features were studied with loyalty. While affective commitment was more influenced by hedonic features, calculative commitment was influenced by utilitarian features. Two commitments were antecedents to trust, trust was antecedent of e-loyalty.
Liu et al.	2013	Online impulse purchase	Online impulse purchase behaviour was examined with website attributes and personality traits. Study concluded that the impulse purchase was affected by variables of personality traits; impulsiveness, instant gratification and normative evaluation. On the other hand, visual appeal (website attribute variable) affected normative evaluation and instant gratification. Visual appeal was also affected by product availability and website ease of use.

One of the technology related reflection on marketing environment is about virtual and augmented reality. Despite these two subjects are related to the experience side and consumer related researches, there could be many research questions regarding to management side. For example, Tussyadiah et al. (2018) studied virtual reality topic in tourism context. They concluded that sense of presence in virtual reality experience did lead to positive attitude change for destination. Also change in attitude was related to visit intention. For the marketing management side, marketers could benefit from augmented reality for enhancing brand experiences (Scholz & Smith, 2016). Scholz and Smith (2016) recommended eight suggestions (named ENTANGLE) for marketers in their studies. These suggestions referred to think about eight things; experiences, nourishing engagement, target audiences, aligning ar with the marketing program, neutralizing threats, goals, leveraging brand meanings and enticing consumers.

New technologies regarding to Industry 4.0, like internet of things, big data, smart products also matter for marketing management. Many other contexts in these topics were studied including, consumers' resistance to smart products (Mani & Chouk, 2017), adoption and sustained use of health and fitness wearables (Canhoto & Arp, 2017), internet of things and its support for marketing activities (Taylor, Reilly, & Wren, 2018). Speed and diffusiveness are the key points for new technologies. As production, marketing and distribution systems regenerate theirselves, consumers and consumer-business interactions will be affected in future.

One of important topics in technology related context is gamification.Gamification was defined as application of game design principles to non-game contexts (Robson, Plangger, Kietzmann, McCarthy, & Pitt, 2015). Hsu and Chen (2018) studied gamification topic with marketing activites, in an online bookstore context and concluded that gamification marketing activities had positive effect on utitilarian and hedonic values. Utitilarian and hedonic values were related to satisfaction and brand love. Therefore, marketing managers could benefit from gamification.

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New technologies also also affect marketing research methodology. The impact of advertising efforts on consumer is an important topic in marketing and advertising resarch. The success rate of advertising efforts matter in marketing management perspective. Venkatraman et al. (2014) studied different type of measurement methods with traditional methods in their study. These methods were traditional self-reports, biometrics, eye tracking, functional magnetic resonance imaging and implicit measures. According to results of this study, it was concluded that functional magnetic resonance imaging was explaining most of variance in advertising elasticities (compared to baseline traditional measures).

Social Media and E-mail Marketing Context

The social media and e-mail marketing context has a key to the interaction of consumers and brands.

According to We Are Social (2018) 3.196 billion people in world are active social media users and this refer to %42 penetration rate. The popularity of social media leads to new research questions. Studies in this area may include issues related to the transmission and distribution of the message subject to marketing.

Mangold and Faulds (2009) concluded two interrelated roles of social media in promotion roles in marketplace. First role was referred to communication of companies with consumers. Second role was referred to communaction of consumers with each others. There are three sides for social media context in this study. First and last sides are consistent to first role of social media, while second side is mostly consistent to second role of social media.

Brand Side of Social Media

As the main focus of this study relies on management side of marketing, first topic in social media context is about brands on social media. Brand equity has a range of brand assets and social media implementation is important for brands. According to Gensleret al. (2013), social media affected consumers by

Table 2. Selected Studies for Mobile and New Technologies Context

Author	Date	Topic	Summary
Hillet al.	2015	Conversations with Artificial Intelligence and Human	The difference between human-human conversation and human-chatbot conversation was examined. According to results, people used shorter, but more messages when they were talking to chatbots. On the other hand human-chatbot conversations had fewer richness of vocabulary.
Hamari et al.	2017	Buying in-game content	Purchase motivations of in-game content were examined. Investigation with 519 participants concluded that unobstructed play, economic rationale and social interaction motivations were positively related to how much money that players spend on in-game content.
Sjöblom and Hamari	2017	Video stream consuming	Motivations of consumer behaviour related to video streaming were examined. Tension release, affective motivations and social integrative were found positively related to amount of hours people watching game streams.
Shankar et al.	2016	Mobile shopper marketing	Mobile shopper marketing topic was examined and a model was presented in this study. Model connected mobile shopping journey with four key entitites; shopper, organization, employee and mobile technology.
Andrews et al.	2015	Mobile ad effectiveness	Mobile ad effectiveness was examined with crowdedness. The main question in study whether crowdedness affect effectiveness of mobile advertisements or not. Results concluded that commuters in crowded areas were more likely to respond to mobile offers by making purchases.

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brand stories. Consumers had important role for brand stories and companies must listen for consumer generated brand stories. Moreover the dynamics of social media channels also matter. Smithet al. (2012) studied the difference of brand-related user generated content across social media channels (Twitter, Facebook and Youtube). They discussed the topic by six dimensions related to user generated content; promotional self-presentation, brand centrality, factually informative, brand sentiment and marketer-directed communication. With the importance and variety of social media channels for brands, it can be concluded that marketing management could benefit from social media.

Consumer Side of Social Media

One of the important topics in social media research is motivations for using social media. Heinonen (2011) discussed consumers' social media activities and their motivations and concluded 15 activities in 3 groups. These groups are information processing, entertainment activities and social connection. Information processing group included activities like retrieving content/product information, sharing and accessing opinions/reviews and rating, new surveillance, collecing factual information and applying knowledge. Entertainment activities included becoming inspired and mood management, excaping the real word and relaxing, entertaining oneself and self-expression. Lastly social connection activities included collaborative experiencing, social surveillance, social networking, belonging and bonding, staying in touch and being up-to-date.

It is a natural result that social media channels have their own characteristics and their usage motivations are different. Instagram, for example, a social media channel with a photo and video base, may not have the same motivation to use the Twitter channel, which is mostly based on text.Personality traits are one of the main factors for social media usage motivations. Ryan and Xenos (2011) studied personality traits in Facebook context and concluded that users of Facebook were likely to be more extraverted and narcissistic. While Facebook non-users were socially lonely, Facebook users had stronger feelings of family loneliness. In another study, Sheldon and Bryant (2016) studied motivations for Instagram usage and found that main reasons for using Instagram were coolness, creativity, surveillance and documentation.

As other changes take place, new types of social media channels emerges. Snapchat is one of them which affect the way of social media usage, especially for young generation. Piwek and Joinson (2016) studied patterns of using Snapchat. In the study which last image users sent and received were examined, concluded that users were sharing mainly selfies, typically with embed text and doodles. Users also were mostly at home and using Snapchat for communication with close friends and families, as funnier and easier alternative to other instant messaging services.In another study Vaterlaus et al. (2016) found that Snapchat was being used mostly for personal usage, closest relationships.

Implementation Side of Social Media

Apart from the specific features of social media, there are also changes in traditional marketing practices. Advertising practices are examples of changes in this area. Advertising in social media channels like Facebook, Twitter, Instagram has become an activity that affects consumers. Dehghani and Tumer (2015) studied Facebook advertising concept with purchase intention of consumers. According to results it was found that Facebook advertising affected brand image and brand equity and also had significant effect in purchasing intention.

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Social media had also affected celebrity endorsement by creating micro or social media celebrities in social media networks. Djafarova and Rushworth (2017) studied Instagram celebrities in a purchase decision context. They concluded that celebrities on Instagram had influence on purchasing decision of young female users of Instagram. Another important conclusion from the study was that online celebrity endorsements were perceived to be more trustworthy and more credible in communicating marketing messages.

On the other hand e-mail marketing is another topic in this context. In e-mail marketing literature contains main marketing subjects; in e-commerce context (Hudák, Kianičková, & Madleňák, 2017), web advertising context (Ellis-Chadwick & Doherty, 2012), adoption of e-mail marketing (Fuchs, Tuta, & Höpken, 2008) etc. There are also studies including detail processses about implementation. For example Kumar et al. (2014) studied about opt-in and opt-out times processes of customer in email marketing, Sahniet al. (2018) examined personalization topic in email marketing by the role of noninformative advertising content.

SOLUTIONS AND RECOMMENDATIONS

Marketing management requires new thinking styles and perspectives in changing environment. This study presents an integrated view for marketing management and changes and developments. Three topics; website, mobile and social media could help marketing managers.

FUTURE RESEARCH DIRECTIONS

This study addresses marketing management from two perspectives: digital marketing and consumer behavior. Recent studies of marketing management in three different contexts included sub-headings and case studies on two identified perspectives. Relevant contexts generally catch up with current issues,

Table 3. Selected Studies for Social Media And E-mail Marketing Context

Author	Date	Topic	Summary
Villarroel Ordenes et al.	2017	Social media and sentiment analysis	An empirical study including text mining with 45.000 reviews was implemented. According to results; activation levels, discourse patterns and implicit sentiment expressions had impact on overall consumer sentiment.
Erkan and Evans	2016	eWom and purchase intention	Influence of eWom in social media on consumers' purchase intention was examined. The key factors found in the study were quality, needs of information, usefulness and adoption of information, attitude towards information and credibility.
Felix et al.	2017	Strategic social media marketing	A new and holistic definition of social media marketing was presented in this study. An integrative framework which expands beyond marketing theory was proposed.
Hudson et al.	2016	Social media interactions and consumer-brand relationship	A three-country study was conducted to examine consumer-brand relationship by social media. According to results it was concluded that social media was positively related to brand relationship quality.
Hartemo	2016	e-mail marketing and empowering consumer	Systematic literature review method was conducted to assess 41 studies about e-mail marketing and 54 studies about consumer empowerment. It was concluded that consumer empowerment could be achieved with help of e-mail marketing by sending emails based on permission, making consumers participate to communication actively and making e-mails relevant for recipients.

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but have followed an overview rather than an in-depth review. This general view, which is appropriate for the purpose of the work, is also a limit of study. Therefore the main suggestion for future research refers to study any of contexts in a detailed view, as they have a broad of scope.

Second suggestion about future researches is related to dual nature of consumer behaviour and digital marketing concepts. Any sub topic in digital marketing concept could be related to both brands and consumers. For example social media communities concept can be included in consumer behaviour studies but this concept can be studied by brand perspective. E-mail marketing can be studied by recipient content and possible questions would be about open rates, subscribe/unsubscribe rates etc. But it can be also studied by brands and possible questions would be about timing of sending, content of subjects etc.

Last suggestion is related to digital techniques. These techniques would be useful for studying traditional concepts in marketing research. For example bibliographic researches, literature reviews etc could be conducted with data mining, text mining methods. With help of clustering methods, popular areas for research could be detected, less studied areas (which can be potential for new researches) could be found.

CONCLUSION

Managing marketing management is useful for managing changes and understanding current concepts. Successful implementation of marketing management will facilitate the identification and implementation of innovations. Examining and making sense of issues have a key role for successul marketing management. In accordance with this purpose, this study has examined marketing management issues with two-side perspective.

The perspectives used in this study are digital marketing and consumer behaviour perspectives. The nature of marketing has a basic "transaction" process which has a seller providing good/service and a buyer wants to have it. Although there are other actors in that transaction, the simple two side structure is used in this study. Digital marketing perspective mostly refer to seller and platform side in marketing issues. On the other hand consumer perspective is about how activities in market are perceived in consumers'mind, how consumers respond etc. Therefore the aim of study was related to examine issues in two perspectives mostly.

As the scope of marketing issues has a wide range of topics, some limiting contexts are used in this study to examine marketing management structurally. Website and search engine context, mobile and new technologies context and lastly social media and email marketing context are the contexts used in this study. Each concept has sub topics and selected studies were presented at the end of contexts.

Website and search engine context was mostly related to main structure of digital marketing. This was mostly related to brand side of marketing but regarding to dual structure of marketing, consumer based studies were discussed, too. In website context the motivations of consumer for visiting was important factor. Other factor in context was about online reviews/ratings.Mobile and new technologies context was about digital advancements in marketing management. Mobile marketing was important for marketing management as mobile was part of consumers' lives. Virtual and augmented reality were also discussed in this context. Last context was about social media and email marketing. This context was related to sharing nature of consumers. Social media context was also related to digital identities of consumers. Three sides of social media were discussed; brand side, consumer side and implementation side.

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KEY TERMS AND DEFINITIONS

Consumer: The “buyer” side in a marketing transaction process that includes exchanging of product/service.

Consumer Behavior: The general name for actions of consumers related to consuming activity.

Digital Marketing: The applications of marketing activities which use digital technologies.

Marketing Management: Management activity of marketing and marketing-related issues.

Social Media: A form of social network which people connected to each other.

Social Network: The structure of web that expresses that the things are connected to each other.

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Chapter 20
Strategic and Innovative Actions of the Government During the Financial Crisis:
A Historical Analysis Between 1929 and 2008

Seçil Şenel
Istanbul Medipol University, Turkey

ABSTRACT

Financial crises cause significant economic and social problems for the countries. Many companies stop their operations and a lot of people lose their jobs. Especially after the globalization, there is an increase in the number of financial crises. Because of this aspect, governments try to implement necessary actions to prevent the crisis. In this scope, government intervention to the market during the crisis period is a much-debated concept. The aim of this chapter is to identify the success of government intervention in the market in crisis period. For this purpose, three different financial crises are analyzed, which are 1929 Economic Depression, 2001 Turkish Economic Crisis, and 2008 Global Mortgage Crisis. As a result, it is identified that when government intervene into the market in crisis period, the countries can much easily overcome the crisis. Therefore, it is recommended that strategic and innovative actions should be taken by the government in case of economic crisis, such as increasing liquidity level and implementing new regulations.

INTRODUCTION

Financial crises had significant negative influences on the countries in many different aspects. In financial crisis periods, lots of different companies stop their operations (Dinçer & Owusu, 2015; Lemmon & Lins, 2003). It means that the investments decrease in the countries. Additionally, because of closing companies, a lot of people lose their jobs. In this circumstance, decreasing investment lowers economic development. Moreover, people losing their jobs have an increasing effect on unemployment. It shows

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that financial crises have negative effects on both economic and social ways (Reinhart & Rogoff, 2008; Campello, Graham, & Harvey, 2010).

Globalization process affected the international trade in the world. Due to the globalization, companies got a chance to operate their activities in many different countries in the world. This situation has a lot of advantages for the countries, such as higher quality services (Dinçer, Yuksel, & Adalı, 2018a; Tunay & Yüksel, 2017). On the other hand, it can be said that globalization causes some disadvantages. As an example, because companies entered many different countries, the level of the competition increased which has a negative effect on the financial performance of the companies. Another important negative influence of the globalization is the currency crisis which refers to the volatility in the currency exchange rates (Mougani, 2012; Dinçer, Hacıoğlu, & Yüksel, 2018b). It can also cause negative effects for the countries that have foreign debts.

While combining these two different paragraphs, it can be understood that there is a positive correlation between the globalization and the financial crises (Kim & Kim, 2003; Prasad, Rogoff, Wei, & Kose, 2005; Eichengreen & Bordo, 2003). There were lots of different financial crises in the history, such as 1929 Economic Depression and 1973 oil crisis. However, it can be seen that the number of the financial crises increases dramatically in the last decades (Oktar & Yüksel, 2015; Colander, Goldberg, Haas, Juselius, Kirman, Lux, & Sloth, 2009). This situation shows that the negative aspects of the globalization had such an enormous influence on the financial performance of the countries that it caused important financial crises.

Since financial crises affected countries significantly, some actions should be taken to minimize the negative effects of these crises. In the literature, there is not a consensus about the role of the governments in financial crises periods. Some researchers think that governments should not intervene the market in these periods (Dowd & Hutchinson, 2010; Crotty, 2009). They think that market can solve this problem automatically after a time. Nevertheless, some other researchers underlined the importance of government intervention in the financial crises. It is thought that owing to the government intervention, the problems can be solved much easily (Lima, Grasselli, Wang, & Wu, 2014; Sharma, 2004; Ding, Wu, & Chang, 2013).

1929 Economic Depression is one of the most popular financial crises in the world. It started in United States and had a significant effect on many different regions of the world. This crisis caused also some social problems because a lot of people became unemployed in this process (Karakaya, 2012; Fuders, Mondaca, & Azungah Haruna, 2013). The important point in the literature about this crisis is that government did not intervene the market in this crisis period. Many researchers think that it caused to see the negative effects of this crisis for a long time. It took lots of years to reinvigorate the economy.

On the other side, 2008 global mortgage crisis is another important example with respect to the financial crises. This crisis caused many different countries in the world (Yüksel, Mukhtarov, Mammadov, & Özsarı, 2018). Lots of big companies, such as Lehman Brothers went bankrupt in this crisis period (Nobi, Maeng, Ha, & Lee, 2014). Similar to 1929 Economic Depression, macroeconomic conditions of the companies were affected importantly after this crisis. However, the main difference between these two different crises is that governments had an active role in 2008 global mortgage crisis. In this context, governments decreased interest rates with the aim of increasing liquidity level in the market and made financial helps to some companies to prevent bankruptcy.

The aim of this study is to assess the role of the governments during financial crises in a historical manner. For this purpose, 3 different financial crises are analyzed which are 1929 Economic Depression, 2001 Turkish Economic Crisis and 2008 Global Mortgage Crisis. The role of the governments in these

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crises periods are evaluated. In this context, it is aimed to define the effects of government interventions in the financial crises periods. As a result, it seems possible to understand whether governments intervene in the market or not.

In this study, firstly, a detailed literature review is conducted. In addition to this situation, the theoretical information about the crises is given. For this purpose, the definition, different types and models of the crises are identified. After that, 1929 Economic Depression, 2001 Turkish Economic Crisis and 2008 Global Mortgage Crisis are explained. Finally, conclusions, solutions and recommendations are shared according to the analysis results of these financial crises.

LITERATURE REVIEW

There were a lot of studies in the literature which focused on the government intervention in the market during financial crises periods. Some significant studies are depicted on Table 1.

Table 1 shows that 1929 Great Depression was analyzed in many different studies. Bernanke (1983) made a study to evaluate the conditions in 1929 Great Depression. For this purpose, the role of the government is emphasized in this study. During this crisis period, credit allocation process did not work effectively. Because of this situation, the cost of this crises went up at an important level. It is identified that the main reason of these conditions is non-intervention of the government during this period. Parallel to this study, Skocpol (1980) tried to analyze the reasons and consequences of this crisis. In this study, the importance of the government's passive role in this crisis is underlined.

In addition to these studies, Gourevitch (1986) made a comparative analysis of different crises. Within this context, 1929 Great Depression and 2008 Global Mortgage Crisis are taken into the consideration. In other words, the roles of the governments in these crises are compared in this study. It is determined that government intervened effectively to the market in 2008 Global Mortgage Crisis whereas it was very passive in 1929 Great Depression. Clavin (2000) is also another significant study which analyzed 1929 Great Depression. Consequently, it is defined that because government did not intervene the market effectively, this crisis affected European region in a negative manner.

De Vogli and Owusu (2015) aimed to understand the causes and the effects of the Great Depression occurred in 1929. They reached a conclusion that the main reason why this crisis prolonged is the passive role of the government. In addition to this study, De Vogli (2014) also focused on the negative effects of the 1929 Great Depression. It is defined that this crisis caused significant income inequality in many different regions of the world. Thus, it is concluded that with an effective government intervention, the negative effects of this crisis could be lower.

Moreover, Eigner and Umlauft (2015) made a comparison between 1929 Great Depression and 2008 Global Mortgage Crisis. They underlined that these two different crises have many similarities. In spite of this situation, it is also possible to talk about many differences between them. For instance, the role of the governments was very different in these two different crises. Furthermore, De Bonis and Silvestrini (2014) assessed the effects of different financial crises on Italian economy. In this study, they identified that 1929 Great Depression had an important influence on Italian economy and the main reason of this situation is the passive role of the government.

Oliveira and Wolf (2017) focused on the European debt crisis in their study. In this context, they gave a detailed information about the historical trend in the economy. They determined that European region was affected significantly from 1929 Great Depression. Similarly, Metaxas and Trompatzi (2015)

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Table 1. Studies related to Government Intervention in Financial Crises

Authors	Financial Crises	Result
Skocpol (1980)	1929 Great Depression	The importance of the government's passive role in this crisis is underlined.
Bernanke (1983)	1929 Great Depression	Non-intervention of the government during this period is the main reason of high cost.
Gourevitch (1986)	1929 Great Depression	Government intervened effectively to the market in 2008 Global Mortgage Crisis whereas it was very passive in 1929 Great Depression.
Clavin (2000)	1929 Great Depression	Since the government did not intervene the market effectively, this crisis affected European region in a negative manner.
Taylor (2009)	2008 Global Mortgage Crisis	Government actions and interventions are the most important problems to minimize the negative effects of the financial crisis.
Aikins (2009)	2008 Global Mortgage Crisis	Government regulations are necessary to minimize the crisis effects.
Breitenfellner and Wagner (2010)	2008 Global Mortgage Crisis	Governments should play a key role in the financial crisis.
Sapienza and Zingales (2012)	2008 Global Mortgage Crisis	The trust of the government is very significant in the crisis period.
Gertler et al. (2012)	2008 Global Mortgage Crisis	Government should conduct an appropriate credit policy to overcome financial crisis.
Atkinson et al. (2013)	2008 Global Mortgage Crisis	The cost of this financial crisis is increased due to the government intervention.
Taylor (2013)	2008 Global Mortgage Crisis	Government intervention in the market decreased the negative conditions of global mortgage crisis.
De Vogli (2014)	1929 Great Depression	The negative effects of the crisis could be lower if government had intervened the market.
Kaytaz and Gül (2014)	2001 Turkey Crisis	Effective government policies were very helpful to recover the negative effects of this crisis.
De Bonis and Silvestrini (2014)	1929 Great Depression	1929 Great Depression had an important influence on Italian economy and the main reason of this situation is the passive role of the government.
Ha and Kang (2015)	2001 Turkey Crisis	Turkish government intervened the market immediately in this crisis period.
Metaxas and Trompatzi (2015)	1929 Great Depression	The government did not take necessary actions during 1929 Great Depression.
Bond and Goldstein (2015)	2008 Global Mortgage Crisis	Government intervention is an issue which plays a key role to stop the problems of the crisis.
Aytac et al. (2015)	2001 Turkey Crisis and 2008 Global Mortgage Crisis	The trust of the government is very helpful to lower the negative impacts of the crisis.
De Vogli and Owusu (2015)	1929 Great Depression	This crisis prolonged because government did not take necessary actions during this period.
Oktar and Eroğlu (2015)	2008 Global Mortgage Crisis	Shadow banking increased the negative consequences of 2008 Global Mortgage Crisis.
Acemoglu and Ucer (2015)	2001 Turkey Crisis	The role of the reforms generated after 2001 crisis is very important.
Eigner and Umlauft (2015)	1929 Great Depression	The role of the governments was very different between 1929 Great Depression and 2008 Global Mortgage Crisis.
Esen and Gumuscu (2016)	2001 Turkey Crisis	Political reforms helped to minimize the negative effects of the financial crisis in Turkey.
Yüksel (2016)	2001 Turkey Crisis	Regulations in the banking sector are very helpful to improve the economy after 2001 crisis period.
Yüksel and Zengin (2016)	2008 Global Mortgage Crisis	With the lessons learnt in 1929 Great Depression, government took immediate actions in 2008 Global Mortgage Crisis
Ari and Cergibozan (2016)	2001 Turkey Crisis	Turkish government took immediate actions to minimize the negative effects of this crisis, such as increasing liquidity level.
Tunay et al. (2017)	2008 Global Mortgage Crisis	The government played an active role in the crisis period.
Aysan et al. (2017)	2001 Turkey Crisis	Market discipline is one of the most significant factors that minimize the crisis.
Oliveira and Wolf (2017)	1929 Great Depression	European region was affected significantly from 1929 Great Depression.
Yüksel (2017)	2008 Global Mortgage Crisis	Effective government intervention to the market decreased the negative effects.

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analyzed the reasons and influences of 1929 Great Depression. They stated that banking system and investments were damaged significantly in this crisis. It is also underlined that the government did not take necessary actions during this period. Thus, this situation is accepted as the lesson for future crisis.

In addition to 1929 Great Depression, 2001 Turkish Economic Crisis was also considered in some studies. Kaytaz and Gül (2014) aimed to analyze the reasons of financial crisis occurred in Turkey in 2001. They focused on many different factors regarding this crisis. They concluded that effective government policies were very helpful to recover the negative effects of this crisis. Similar to this study, Ari and Cergibozan (2016) is another important study which evaluated 2001 Turkey financial crisis. They explained the determinants of this crisis, such as currency volatility, nonperforming loans. In this study, it is emphasized that Turkish government took immediate actions to minimize the negative effects of this crisis, such as increasing liquidity level. This situation led to speed recovery of this crisis.

Moreover, Acemoglu and Ucer (2015) tried to analyze the details of Turkish economy after 2000. In this period, they focused on the causes and the effects of 2001 financial crisis. It is identified that the role of the reforms generated after this crisis is very important. Owing to these reforms, there is an increase in the performance of Turkish economy after this period. Esen and Gumuscu (2016) also evaluated the financial crisis of Turkey. They reached the conclusion that economy of Turkey improved rapidly after 2000 with the help of effective reforms.

Yüksel (2016) focused on the different banking crises in Turkey. For this purpose, 1994 and 2001 banking crises are taken into the consideration in this study. MARS methodology is used in the analysis process. As a result of this analysis, the determinants of the banking crises are identified. Additionally, the importance of the regulation is underlined in the recovery process. Also, Aytac et al. (2015) aimed to understand the social impacts of the financial crises in Turkey. They reached the conclusion that when people trust to the governments, it can be very easy to overcome the financial crisis.

Aysan et al. (2017) focused on the market discipline in the banking sector. For this purpose, Islamic banks in Turkey are considered. In this study, they defined that in 2001 financial crisis period, Turkish Islamic banks were affected negatively. However, effective reforms play a key role to recover this crisis. Ha and Kang (2015) also evaluated the policy responses of the governments in the financial crisis periods. In this context, developing countries are analyzed. They defined that Turkish government intervened the market immediately in this crisis period.

Moreover, 2008 global mortgage crisis was taken into the consideration by some researchers. Breitenfellner and Wagner (2010) made a study to analyze 2008 global mortgage crisis. As a result of the analysis, they concluded that many lessons were learnt in this economic crisis. First of all, the liquidity level should be decreased in the financial crisis period. Otherwise, companies go bankrupt because of not reaching necessary liquidity level. In addition to this situation, it is also emphasized that necessary regulations should be prepared. In other words, they identify that governments should play a key role in the financial crisis. Additionally, Sapienza and Zingales (2012) also evaluated 2008 global mortgage crisis in different aspects. They underlined that in this crisis period, there was an important decrease in the trust of the investors especially because of the bankruptcy of Lehman Brothers company. In order to solve this lack of trust problem, they concluded that governments should play actively in the market.

Taylor (2009) aimed to analyze the determinants of 2008 global mortgage crisis. In other words, he tried to identify why this crisis affected many different regions in the world. In this study, it is determined that government actions and interventions are the most important problems to solve the financial crisis problems. Similarly, during this financial crisis, expansionary monetary policies played a very

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important role to stop the negative effects of the crisis. Atkinson et al. (2013) also assessed this crisis in their study. They tried to understand the costs and consequences of this crisis. They underlined that government intervention has an increasing effect on the costs in this crisis.

Gertler et al. (2012) aimed to understand the role of the government in the financial crises. They tried to find the answer to mitigate the crises. By using regression analysis, they reached the conclusion that government credit policy is an important issue to minimize the vulnerability of the financial system. In addition to this study, Taylor (2013) made a detailed analysis regarding 2008 global mortgage crisis. In this scope, economic conditions before this financial crisis, the negative effects of the crisis and actions taken after are taken into the consideration. As a result, it is defined that government intervention in the market minimized the negative conditions during this crisis period.

Aikins (2009) is another study which focused on 2008 global mortgage crisis. In this study, he analyzed the quantitative information related to the financial market during this period. According to the results of the analysis, he concluded that respective governments can be very successful to stabilize the market in the crisis periods. Additionally, Bond and Goldstein (2015) evaluated the effects of 2008 global mortgage crisis as well. In this scope, they focused on the ways of eliminating negative influences of this crisis. They reached a conclusion that government intervention is an issue which plays a key role to stop the problems of the crisis.

Yüksel (2017) concentrated on the strategies of the emerging markets to prevent the negative effects of 2008 global mortgage crisis. Within this framework, 22 emerging economies are considered in this study. It is concluded that increasing liquidity level is the most significant factor to stop the negative effects of this crisis. Parallel to this study, Tunay et al. (2017) also aimed to identify the effects of the financial crisis on the bank performance. For this purpose, 46 developed and developing countries are considered in this study. They underlined the importance of active government intervention to the market in the crisis period.

Yüksel and Zengin (2016) aimed to identify the leading indicators of 2008 global mortgage crisis. In this circumstance, both logit and MARS approaches are taken into the consideration. In addition to the defining the main causes of this crisis, they also tried to understand which of these two methods are successful to predict the crisis. In this process, they stated the importance of increasing the liquidity level in the market immediately to overcome this crisis. Similar to this study, Oktar and Eroğlu (2015) also focused on this crisis. They underlined the importance of shadow banking in this crisis period. They also emphasized the role of increasing liquidity level in the market to lower the effects of 2008 global mortgage crisis.

GENERAL INFORMATION ABOUT FINANCIAL CRISIS

The Definition of Financial Crisis

Financial crisis refers to the situation in which financial system of a country does not operate effectively (Barrios, Iversen, Lewandowska, & Setzer, 2009; Baek, Kang, & Park, 2004; Erkens, Hung, & Matos, 2012). Because of this situation, macroeconomic variables of this country are affected in a negative manner. In other words, when there is not an effective financial system, fund demanders cannot reach the money they need. This condition negatively affects the investment amount in the country. Companies in a country are subject to lower profitability in case of lower investment and they prefer to employ less

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people. Therefore, unemployment rate in the country goes up. It makes macroeconomic conditions of the country worse and increases the level of the crisis (Chor & Manova, 2012; Claessens, Dell'Ariccia, Igan, & Laeven, 2010; Wade, 1998).

Types of Financial Crisis

As it can be understood from the definition, identifying a crisis is a very difficult aspect. Therefore, it is possible to explain different types of the crisis. Currency crisis is the first type of the financial crises. It refers to the devaluation of the local currency dramatically (Goldfajn & Gupta, 2003; Baig & Goldfajn, 1998; Cerra & Saxena, 2002). Due to this condition, central banks take action to solve this problem especially by selling foreign exchanges to the market. However, central banks can implement this action by using their reserves. In other words, it is limited with the amount of central bank reserves. When the reserves of the central banks are too low, it is understood that they cannot control the devaluation after a point. This situation creates a panic environment in the market and it causes higher devaluation. In such a circumstance, the companies with high foreign debts may go bankrupt. Asian financial crisis occurred in 1998 is an example of currency crisis (Burnside, Eichenbaum, & Rebelo, 2001; Brown, Goetzmann, & Park, 1998; Corsetti, Pesenti, & Roubini, 1999).

In addition to the currency crisis, banking crisis is another type of the financial crises. Especially all type of the crises affects the banking industry. Nevertheless, the main difference of the banking crisis in comparison with other types of the crises is that the crisis started because of the problems in the banking sector (Jonung, 2009; Ongena, Smith, & Michalsen, 2003; Molina, 2002). For example, when banks in a country take higher risks while giving loans to the customers, it can cause nonperforming loans to increase. This situation has a negative impact on the profitability of the banks. Owing to this issue, bank prefer to decrease credit amount which reduces the investment in the country. It is obvious that it leads to economic recession in the country. Turkish financial crisis in 1994 and 2001 and 2008 global mortgage crisis are the examples of the banking crisis (Ozkan-Gunay & Tektas, 2006; Alper, 2001; Chava & Purnanandam, 2011).

Moreover, debt crisis is the last type of the financial crisis. It is much easier to define a debt crisis by comparing with other types of the crisis. When a country declares that it cannot the debt, it means that this country is under debt crisis (Featherstone, 2011; Candelon, Sy, & Arezki, 2011; Walton & Ragin, 1990). Similar to the companies, governments have also incomes, such as taxes and expenses like the salaries of the civil servants. If the income of the governments is lower than these expenses, they need to take debt in such a case. If this debt cannot be paid by the governments, it refers to the debt crisis. European crisis started in 2010 is accepted as the example of the debt crisis (Beirne & Fratzscher, 2013; Gianviti, Krueger, Pisani-Ferry, Sapir, & Von Hagen, 2010; Acharya, Eisert, Eufinger, & Hirsch, 2018)

Selected Financial Crises

"1929 Great Depression" is one of the most significant financial crises in the history. It started in US in 1929 and affected many different regions in the world. This crisis especially has created devastating effects in industrialized countries. Because of this situation, the number of unemployed people dramatically increased, and it created important social problems in the world. Another important point of this crisis is that it affected many different industries at the same time (Ho & Lai, 2016; Piketty & Saez, 2013). For instance, construction activities stopped in many countries affected from this crisis. In addition to the

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construction sector, sharp drop in the prices of the agricultural products led to have high amount of the losses for the farmers. As a result of these issues, the trade amount in the world went down significantly (Stuckler, Meissner, Fishback, Basu, & McKee, 2010; Hiç-Birol, 2013)

It seems that the industrialization in the American economy has increased considerably in the periods before the crisis. In this period, new industries such as automobiles and electric powered machines started to develop in the country. This situation has an increasing effect on the production amount and the employment level in the country. However, companies started to make overproduction to increase their profitability. This issue increased the volatility of the market. It can be seen that from one point, the production level exceeded the market demand. This situation caused a significant recession for US economy (Genç & Sarısoy, 2013)

Because of these reasons, there was a sharp decrease in the stock values on 24.10.1929. Due to this condition, this day is also called as "Black Thursday". In this process, lots of banks stopped their operations. In other words, trade in the country came to a stopping point. As a result, US companies took out their capital from the Europe which caused this crisis spread to the European region. After 1929 Great Depression, a lot of companies went bankruptcy and many people became unemployed. The important point of this crisis is that government did not intervene the market. The government did not allow liquidity growth to protect the gold standard up to 1933. In this year, gold standard implementation was stopped, and expansionary monetary and fiscal policies were conducted (Economakis, Anastasiadis, & Markaki, 2010). Some economic information is given on Table 2.

Table 2 gives information that it took for a long time to finish the negative effects of the 1929 Great Depression. For instance, in 1946, the GDP amount exceeded the value in 1929. In addition to this situation, it can also be understood that real private fixed investment index and personal consumption expenditures index reached the value of 1929 in 1944. This situation shows that 1929 Great Depression affected the world for a long period. The main reason behind this condition is the passive role of the government in this process.

"2001 Turkish Financial Crisis" is another example of the financial crisis in the history. Turkey is a country which had a financial crisis in 1994 as well. Some precautions were considered with the aim of overcoming the crisis. Although these actions lowered the negative impacts of the crisis, it is accepted that they could not solve the problems completely. Before 2001 crisis period, there was a significant crisis in Asian region which affected 5 different countries. Parallel to this issue, Russia also suffered from a financial crisis in 1998. This situation negatively affected Turkish economy (Özatay & Sak, 2002; Öniş, 2009).

Due to this situation, Turkey started an agreement with IMF in this period with respect to a new economic program. One of the main objectives of the program is to reduce the high inflation in the country and to provide economic stability. Providing fiscal discipline in the public sector is another outstanding aim of this program. Additionally, according to this program, increasing rate of the foreign exchange rate is explained before. At the beginning, this program seemed to be successful because inflation rate and interest rate decreased significantly (Budina & Van Wijnbergen, 2008; Dufour & Orhangazi, 2009).

However, very low interest rates had an increasing effect on the loan amount. This situation led people to consume more. The increase in consumption has increased the demand for imported goods and as a result the import figures have increased. The rise in the import figures also led to an increase in the current account deficit. Along with the unease experienced in the market, panic occurred in the banking sector as well. Moreover, the reserve amount of the central bank decreased very much in this

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Table 2. Quantitative Information during 1929 Great Depression

Year	GDP (Billions of Dollar)	Real Private Fixed Investment Index	Personal Consumption Expenditures Index
1929	17.170	5.071	9.601
1930	11.428	4.962	9.245
1931	6.549	4.493	8.474
1932	1.819	3.663	7.543
1933	2.276	3.607	7.179
1934	4.296	4.006	7.347
1935	7.370	3.950	7.427
1936	9.391	4.142	7.511
1937	12.967	4.547	7.821
1938	7.944	4.692	7.786
1939	10.229	4.722	7.726
1940	14.579	4.864	7.806
1941	19.369	5.314	8.209
1942	11.762	5.708	9.110
1943	7.405	6.176	9.817
1944	9.180	6.775	10.516
1945	12.400	7.232	11.000
1946	33.128	7.849	11.684
1947	37.131	9.402	12.682
1948	50.347	10.192	13.381
1949	39.099	10.327	13.400
1950	56.530	10.582	13.594

Source: Federal Reserve Bank of St. Louis

period with the aim of controlling currency exchange rate. As a result of this situation, most of the banks went bankruptcy (Koch, Chaudhary, & Bilquees, 2001; Temiz & Gökmen, 2009).

After this crisis, Turkish government took immediate actions to minimize the negative effects. First of all, Banking Regulation and Supervision Agency (BRSA) was founded to control banking system because it was seen that insufficient regulations caused many problems in the banking system. Furthermore, many different regulations were also generated to provide stability in currency exchange rate and interest rates. It is obvious that with these kind of actions, negative effects of the crisis could be overcome in a very short time (Gemici, 2013; Kirkulak & Erdem, 2014). The quantitative information is given on Table 3.

Table 3 explains that GDP growth rate became positive (6.43) after one year with the help of new regulations. In addition to this situation, inflation rate decreased to 10.58% in 2004 whereas it was 54.40% in 2001. Moreover, ROE increased to the ratio of 25.52 in 2002 although it was -45.08 just one year before. While considering this information, it can easily be seen that new regulations were very helpful to have stability in the market.

“2008 Global Mortgage Crisis” is another significant financial crisis in the history. It is accepted that this crisis was caused mainly inaccurate actions taken after the dot.com crisis in 2000. In order to

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Table 3. Quantitative Information during 2001 Turkey Crisis

Year	GDP Growth Rate	Inflation Rate	Bank ROE
1997	7.58	85.73	19.07
1998	2.31	84.64	16.73
1999	-3.39	64.87	26.07
2000	6.64	54.92	3.14
2001	-5.96	54.40	-45.08
2002	6.43	44.96	25.52
2003	5.61	25.30	25.12
2004	9.64	10.58	27.24
2005	9.01	10.14	21.47
2006	7.11	9.60	25.09

Source: World Bank and Federal Reserve Bank of St. Louis

prevent this crisis, the FED decreased the interest rates to the lowest level of the last 45 years (Rose & Spiegel, 2012; Helleiner, 2010). This situation had an increasing influence on the credit amount. In this circumstance, the main problem is that the loans were not used by only the people with high credibility. The amount of the loans given to the people with low credibility reached important levels as well. As a result, unexpected problems have arisen in loan repayments.

After the 2008 crisis, US economy experienced an important recession. The most significant development in relation to the crisis was the bankruptcy of Lehman Brothers in September 2008 which was the fourth largest US investment bank. In addition to this issue, the crisis began to affect the European Banking system since October 2008. In this process, a lot of people became unemployed. Furthermore, many different companies stopped their operations. These conditions increased the power of the financial crisis as well (He, Khang, & Krishnamurthy, 2010; Lee, Rabanal, & Sandri, 2010).

With very bad experiences in 1929 Great Depression, it can be seen that US government took immediate actions to prevent the crisis. The US became the first country to disclose the measuring package during the crisis. Within this framework, The US government has explained rescue package with the amount of 850 billion US dollars. In addition to them, the FED reduced its interest rates to 0.25% by taking the most radical interest rate reduction decision. While looking at these aspects, it can be said that FED is playing an active role in providing liquidity to the market (Acosta-González, Fernández-Rodríguez, & Sosvilla-Rivero, 2012; Sensoy, Yuksel, & Erturk, 2013). Some quantitative information related to this crisis period is demonstrated on Table 4.

Table 4 shows that there was an important increase in GDP amount after one year of this crisis. Furthermore, real private fixed investment index has reached the normal standard in 2012. Similar to this aspect, personal consumption expenditures index was not affected very much from this crisis. These issues demonstrate that government intervention to the market helps the country to overcome this crisis in a very short period.

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Table 4. Quantitative Information during 2008 Global Mortgage Crisis

Year	GDP (Billions of Dollar)	Real Private Fixed Investment Index	Personal Consumption Expenditures Index
2005	2,534.72	96.706	88.373
2006	2,700.95	102.355	90.392
2007	2,673.01	103.708	92.378
2008	2,477.61	102.249	94.225
2009	1,929.66	98.671	95.315
2010	2,165.47	98.317	96.608
2011	2,332.56	99.049	98.139
2012	2,621.75	100.000	100.000
2013	2,826.01	105.054	101.526
2014	3,038.93	111.106	103.168
2015	3,211.97	114.100	104.501
2016	3,169.89	118.185	106.237
2017	3,367.97	123.495	107.961

Source: Federal Reserve Bank of St. Louis

SOLUTIONS AND RECOMMENDATIONS

In this study, it is concluded that the countries can much easily overcome the crisis when government intervene into the market. Thus, it is recommended that strategic and innovative actions should be taken by the government if there is an economic crisis. Within this scope, increasing liquidity level and implementing new regulations can be very helpful for this purpose.

FUTURE RESEARCH DIRECTIONS

This study aims to analyze the performance of government intervention into the market in crisis period. For this purpose, 1929 Economic Depression, 2001; Turkish Economic Crisis and 2008; Global Mortgage Crisis are analyzed. In the future studies, a new analysis can be performed by considering some other crises, such as 1973 oil crisis, 1998 Russian crisis and 2001 Argentina crisis.

CONCLUSION

Financial crises cause many people to lose their jobs and lots of companies to go bankrupt. Because of these conditions, countries try to analyze crises not to have again. In this circumstance, indicators of the crises are aimed to be identified. Thus, any signal regarding financial crises can be identified so that a crisis can be prevented. In addition to this issue, government intervention to the market during the crisis period is a debatable issue. Although some researchers think that governments should not intervene, most of the researchers argue that they should play an active role in this process.

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This study aims to evaluate the role of the government intervention in the financial crises. For this purpose, 1929; Economic Depression, 2001; Turkish Economic Crisis and 2008; Global Mortgage Crisis are taken into the consideration. 1929 Economic Depression is an example in which there is not an effective government intervention. On the other side, in 2001; Turkish Economic Crisis and 2008; Global Mortgage Crisis, governments played an active role.

It is identified that it took for a long time to finish the negative effects of the 1929 Great Depression. The main reason behind this situation is that government had a very passive role in this period. For instance, in 1946, the GDP amount could be reached the before crisis period. On the other hand, stability of Turkish economy could be provided just in two years period after 2001 financial crisis. Similarly, US economy could reach sustainable growth in a very short time after the 2008 global mortgage crisis.

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KEY TERMS AND DEFINITIONS

FED: Central Bank of America.
GDP: Gross domestic product.
MARS: Multivariate adaptive regression splines.
NPL: Non-performing loans.
US: United States.

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Chapter 21
Thriving at Work as a Psychological Mechanism to Enhance Employee Capability of Innovative Voice

Ömer Erdem Koçak
Istanbul Medipol University, Turkey

ABSTRACT

The aim of this chapter is to shed light on the mechanism under the relationship between innovative voice and its predictors of person-job fit and supervisor support. Thriving at work, a personal experience, is proposed as a mediator between predictors and outcome variable. To test the hypothesis, data was collected from 467 white-collar employees from several industries employing both convenience and snowball sampling methods. According to the results of structural equation modelling and bootstrapping method for mediation tests, the findings are as follows: Thriving at work fully mediates the relationship between demand-ability fit, but it only partially mediates the effect of supervisor support. Further, multigroup analysis showed that both pathways were mediated by thriving at work for both gender groups. This study showed that thriving at work fuels employees' innovativeness which is nurtured by relationship quality, task focus, exploration, and other key resources.

INTRODUCTION

The recent development in business world require companies to be vested with ability to adapt to rapid changes. This adaptation can be obtained through two ways. First one is following the recent changes in the business world and simply adopting new techniques to own business. Second one is investing on and doing innovation per se. However, legal issues such as copyrights and cost of being simply a follower sometimes exceed the return of following others. Therefore, focusing on and exerting effort for innovation may provide better competitive advantage for organizations.

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From the talent management perspective (Berger & Berger, 2010), the unduplicable way of innovation can be ensured via capitalizing employees innovation ability (Pfeffer, 1994; Pfeffer & Jeffrey, 1998; De Jong & De Hartog, 2007). The recent trends in work setting suggest employee job descriptions to be less rigid and organizing tasks around knowledge-based perspective; where employees can contribute organization's innovation through giving suggestions and generating novel ideas (Amabile, 1988, Unsworth & Parker 2003). However, a sustainable innovative behavior requires cognitive and affective capacity for employees.

In this point, thriving at work, a psychological state in which employees feel joint experience of vitality and learning while working, can be a useful mechanism as it is suggested that thriving experiences encompass both cognitive and affective well-being of employees (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005; Porath, Spreitzer, Gibson, & Garnett, 2012; Paterson, Luthans, & Jeung, 2014; Koçak, 2016), which may contribute to creative behaviors of employees.

According to the socially embedded model of thriving at work (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005), task focus, and heedful relating are prominent antecedents of employees thriving experiences at work. Thus, one can suggest that both a well-established relationship with supervisor and increased expertise can help employees to thrive. While the first one may provide a room for innovation and/or create an environment which value innovation, a congruence between what a job requires and what employee has implicitly highlights a possibility for expertise.

The aim of this study is to emphasize psychological experience of thriving at work as an underlying mechanism between work environment and producing innovative work behaviors. Supervisor support and demand-ability fit of employees are examined as predictors of suggestive voice while thriving at work is modelled as a mediator in this relationship. In addition, a multigroup comparison between males and females is done to underline the gender differences as gender is an important issue in Turkish work environment. Previous research suggests gender differences worth to note in workplace-related studies (Koyuncu & Burke, 2006; Kara, Uysal & Magnini, 2011; Sari, 2004).

The order of the chapter is as follows. Firstly, a theoretical framework along with literature review and hypotheses are given. Secondly, research design and results of a field study are reported. Thirdly, discussion of the given results together with theoretical and practical implications are provided.

LITERATURE REVIEW

Innovative Voice Behavior

Voice behavior has been examined by Hirschman in 1970 and announced as powerful as a magic wand that is particularly effective in times of change. So, as a tool which can be used by organizations to adapt itself to changing environment, employee voice can address weaknesses and strengths of organization. The beginning of voice behavior in organization research was related to managing change processes (Withey & Cooper, 1989; Farrell & Rusbult, 1992; Van Dyne, Cummings, & McLean Parks, 1995; LePine & Van Dyne, 1998; Van Dyne & LePine, 1998). Later, the voice behavior has been operationalized as a tool for employee participation, mostly in decision making processes (Bies & Shapiro, 1988; Lind, Kanfer, & Earley, 1990). In recent years, voice behavior has been defined as dissenting, participation, speaking up, challenging the status quo, or making suggestions as a citizenship behavior.

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Innovative Voice behavior is mostly conceptualized depending on studies of Van Dyne and LePine (1998) and Maynes and Podsakof (2014). Van Dyne and LePine (1998) defined voice behavior as constructive expressions including the intention of change to make works more efficient and effective. Later, that definition was extended in a way that Van Dyne, Ang and Botero (2003) defined voice behavior as employees challenging but constructive expression which may be in form of opinions, concerns, or ideas about issues in organization. These definitions theorize employee voice behavior as a specific positive and constructive extra-role behavior. But unlike other extra-role behaviors which usually lead to affiliation and increased group solidarity, voice behavior may cause riotous changes in status quo (Graham & Van Dyne, 2006). The voice behavior has different motivational roots because its challenging and change-orientation nature may trigger employees to have greater control over their work environment (Van Dyne, Cummings, & McLean Parks, 1995; Choi, 2007, Grant & Mayer, 2009). However, Although some other types of voice were also stated which include supporting the status-quo or damaging any authority (Gorden, 1988; Gorden & Infante, 1988), or voice as dissenting (Kassing, 1997, 2002; Kassing & Armstrong, 2002).

In this study, voice behavior is conceptualized as a positive and innovation-oriented action through which individuals aim to add value to the organization. Even a recent paper by Maynes and Podsakoff (2014) studied theoretical, conceptual and operational definitions of employee voice behavior in detail. According to them, employee voice behavior is defined as "*an individual's voluntary and open communication directed toward individuals within the organization that is focused on influencing the context of the work environment.*" This definition is consistent with what present study focus. Moreover, they posit that voice behavior does not merely consist of vocal expression. Written expressions such as e-mails and memos should be considered as voice behaviors. They suggest that voice behaviors have common features: 1) they are shown by individuals; 2) they are not silent, anonymous or neutral; 3) they obviously stake out employee's position; 4) it possesses risk for relationships at work (Maynes & Podsakoff, 2014). These features show that a constructive voice behavior which is likely to lead innovation can be labelled as a specific type of innovative work behavior. In addition, they tested this operationalization with work group referent (Podsakoff, Maynes, Whiting, & Podsakoff, 2015). Thus, this study employed constructive voice type from Maynes and Podsakoff (2014) study (innovative voice) which is likely to represent innovative work behavior.

Thriving at Work

The definition of thriving at work is one's feeling of personal growth, getting better or gaining momentum at work (Carmeli & Spreitzer, 2009). When it is said "thriving", not only a state of being fine in which no psychological disturbance is experienced (Saakvitne, Tennen & Affleck, 1998; Benson & Scales, 2009), but also a state that individual is developing and getting better coupled with other domains of life (Calhoun & Tedeschi, 1998; Joseph & Linley, 2008) is implied. So, it can be concluded that thriving at work represents growth or an upward trajectory which is beyond surviving at work (Thomas & Hall, 2008). Thriving at work has been found to trigger several pleasing results at work setting (Carmeli & Spreitzer, 2009; Spreitzer, Porath, & Gibson, 2012; Porath, Spreitzer, Gibson, & Garnett, 2012; Paterson, Luthans, & Jeung, 2014), and one of them is innovative work behavior (Abid, 2014).

Although thriving at work seem to be a highly personal experience and related to subjective well-being and self-transcendence, it is also strongly associated with some organizational factors. For instance,

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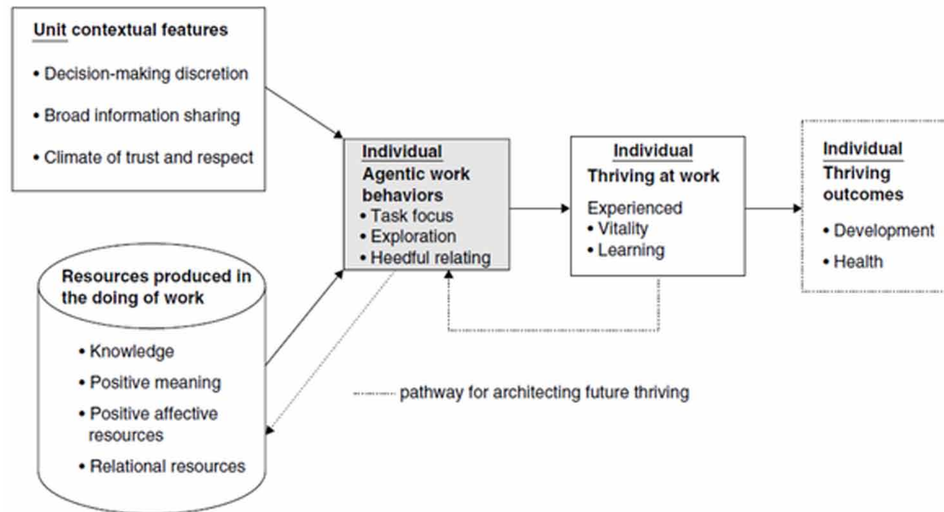
Figure 1. Socially Embedded Model of Thriving at Work (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005)



Spreitzer, Sutcliffe, Dutton, Sonenshein, and Grant (2005) have proposed a "Socially Embedded Model of Thriving at Work" indicating both personal and organizational antecedents consequences (see Figure 1). It implies in which particular workplace characteristics employees are more likely to thrive.

According to this proposed model, mainly, unit contextual features, resources produced in doing of work, and individual agentic work behaviors are major antecedents of thriving at work. Unit contextual features are reflected by decision-making discretion, broad information sharing, and climate of trust and respect. These features imply that a workplace which provides autonomy, high-quality relationships, and adequate information is likely to trigger agentic work behaviors such as task focus, exploration, and heedful relating.

Task focus means devoting cognitive, emotional and physical resources to the task at hand, and becoming absorbed in work. Thus, their vitality may increase and if employee completes the work successfully, s/he is likely to feel more self-efficacy, which may increase vitality in turn (Bandura, 1986; Csikzentmihalyi, 1990; Ryan & Deci, 2000a, 2000b). Also, devoting cognitive resources to the task may increase the sense of learning. Exploration refers to a phenomenon in which employees try to discover, experiment new ways of working, and risk taking. It triggers employees to come up with novel ideas, strategies, and information. Exposure to creative events can increase or restore energy (vitality). Also, when individuals explore more, they will encounter new ideas, strategies, and information which in turn lead to greater sense of learning. Exploration especially helps employees to learn from mistakes (Lee, Edmondson, Thomke, & Worline, 2004).

Heedful relating happens when employees are observant and watchful to other people and coordinate his/her action with others' (Weick & Roberts, 1993; Druskat & Pescosolido, 2002; Taylor, Templeton, & Baker, 2010). Relating heedfully may firstly help employees to gain a holistic perspective of the system in which they work so that they can understand how their job matches with others'. Secondly, it brings social support and helping behaviors. By doing so, their vitality level may increase (Carlson, Charlin, & Miller, 1988). It promotes employee learning experiences as well. As Bandura (1977) suggests, em-

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ployees can watch and attend to their colleagues, and learn from the strategies and perspectives they use. Consequently, they can acquire new skills and knowledge.

The agentic behaviors are told to have a reciprocal relationship with resource production in the doing of the work such as knowledge, positive meaning, positive affective resources, and relational resources. Knowledge resources refer to knowing how things get done at work such as knowing who has the relevant knowledge about a specific issue (Orlikowski, 2002; Moreland & Argote, 2003). Positive meaning is similar to the significance of the job which implies the importance and purpose inherent in work and can be gained via generation of value in with work, organization, and colleagues (Pratt & Ashford, 2003). Positive affective resources are what employees feel during working, such as feelings of contentment, gratitude, hope, etc. (Sheldon & King, 2001; Fredrickson, 2001, 2003). Last but not least, relational resources are characterized by high-quality connections or relationships in the workplace (Dutton, 2003). According to Spreitzer et al. (2005), an increase in these resources leads to an increase in agentic work behaviors; while agentic work behaviors help to generate resources as well.

Spreitzer et al. (2005) conceptualized thriving at work as a state rather than a disposition, and one's feeling of learning accompanying with a sense of vitality. While learning highlights one's getting better at work via acquiring new skills and knowledge; vitality is understood as feeling full of energy, being alert and alive (Ryan & Frederick, 1997; Porath, Spreitzer, Gibson & Garnett, 2012). It should be noted that these two components enhance each other (Ren, Yunlu, Shaffer, & Fodchuk, 2015). Vitality tends to refer to one's energy available to use and to be alive, alert, awake, excited and enthusiastic (Ryan & Frederick, 1997; Nix, Ryan, Manly, & Deci, 1999). Some studies on vitality also showed that it contributes to individuals in gaining meaning and goal (Ryan, Bernstein, Peterson & Seligman, 2004). The other dimension, learning, refers to one's obtaining new knowledge, skills and abilities (KSAs) (Dweck, 1986) and transferring them into work life. In this sense, the learning dimension denotes knowledge acquisition and application, and enhanced capability (Edmondson, 1999). Those thriving at work, experiences learning to adopt new behaviors and be aware his/her capabilities (Amabile, 1998).

Thriving at work is expected to be a good accelerator of the employee innovative voice behavior as it has roots of cognitive and emotional mechanisms. Firstly, learning at work leads to increased expertise. This may trigger novel perspectives and increases self-efficacy which is one of the most influential antecedents of creativity (Bandura, 1997; Amabile, 1997). As employees equip themselves with better skills and knowledge they may feel more competent which may give them feeling to have a right to be a pioneer. So that, they can go beyond the status quo, and exhibit innovative voice behavior. Secondly, vitality as a positive emotion may fuel employees with high levels of energy and excitement. This state is likely to arouse them to move forward and think more broadly, consistent with the broaden-and-built theory of positive emotions (Fredrickson, 2001). Additionally, if organizational dynamics lead them to feel positive emotions, thriving individuals would tend to try their best to make that organization more livable place. Thirdly, Spreitzer et al (2005) state that thriving is a desirable state in which a thriving person persists to live it longer and behaves accordingly. Thus, a thriving employee is likely to maintain his/her state by giving suggestions and generating novel ideas. Lastly, thriving employees are more likely to recognize problems and come up with new solutions, to promote their ideas, and able to produce one prototype of their own ideas (Carmeli & Spreitzer, 2009). So, it is clear that employees who experience vitality and learning at work are more likely to generate, promote and share new ideas. Hence, the first hypothesis is stated as follows:

H_1: Thriving at work is positively related to innovative voice behavior.

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Supervisor Support

The concept of supervisor support emanates from the concept of social support which refers to the exchange of information leading a person to believe that he/she is cared for (Cobb, 1976). It consists of an interpersonal transaction including one or more of affect, affirmation and help (Antonucci, 1985, 2001), and tangible and emotional help.

Supervisor support is defined as a transfer of work-related physical and emotional resources from supervisor to subordinate which is needed in the course of performing tasks (House, 1983; Eisenberger, Fasolo & Davis-Lamastro, 1990). By means of this transfer, employees believe that their supervisors take care of them; their desires, needs, and well-being (Eisenberger et al., 1990). Several positive experiences such as personal engagement (Saks, 2006), organizational commitment (Rhoades, Eisenberger & Armeli, 2001), and trust (DeConinck, 2010) are known to emerge as a result of supervisor support.

In this way, supervisor support can be addressed as an antecedent of innovative work behavior (Janssen and Van Yperen, 2004). Firstly, literature posits that subordinates who have strong tie with supervisors are given more resources, autonomy, and freedom in exchange for loyalty (Graen & Uhl-Bien, 1995). Therefore, it is expected that employees who feel supported by their supervisors get more resources, allowed and encouraged for expressing novel ideas. This facilitates their innovativeness.

Secondly, supervisor support may give employees feelings of safety by which they may take risks, explore new ways of doing work, or they may attempt to modify their work environment (Wrzesniewski & Dutton, 2001; Tims, Bakker & Derks, 2013).

Thirdly, supervisor support may help employees focus on their own tasks rather than spending their energy and time with organizational politics such as seeking, pretecting, keeping key resources (Hobfoll, 1989). Task focus is a prominent predictor of thriving at work according to the Spreitzer et al. (2005) model.

Fourthly, support from supervisor is a kind of heedful relating which creates feelings of affiliation with organization/management representatives. Therefore, it addresses another major antecedent of thriving at work (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005).

Furthermore, supervisors influence employees' work lives and their thriving experiences as they set the immediate contact with their employees. They give feedback about failures or successes, and sometimes use delegation, punishment, awarding, use coaching tools. Therefore, they create the largest impact on employee attitudes, behaviors, and well-being in the organizations. Results from previous studies show that higher supervisor support predicts to decreased strain (Sheridan & Vredenburgh, 1978; Cohen and Wills, 1985), lower burnout levels (Greenglass, Burke & Konarski, 1997). Supervisor support plays an important role in increasing employee satisfaction (Yukl, 1989; Brough & Pears, 2004). These affect-based findings show that supervisor support is crucial for employees' feelings of vitality. A recent study conducted in China reports that the more leader-member exchange is high, the more employees thrive at work (Li, 2015).

Studies show that supervisor support strengthens employees' mental health besides emotions (LaRocco, House, & French, 1980; House, 1983; Turner, 1983; Turner, Frankel, & Levin, 1983; House, Strecher, Metzner, & Robbins, 1986; Haines, Hurlbert, & Zimmer, 1991). It facilitates learning processes and brings benefits for both organization and employees via facilitating the transfer of training (Baldwin & Ford, 1988; Elangovan & Karakowsky 1999). Then it can be inferred that supervisor support let em-

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ployees easily engage in utilizing new and old skills which can create learning spirals. Hence, second hypothesis is stated as follows:

H_2: Supervisor support positively relates to innovative voice through thriving at work.

Demand-Ability Fit

Congruence between person and its environment (organization, occupation, job) has drawn interest in the literature (Edwards, 1996; Kristof-Brown, 2000; Lauver & Kristof-Brown, 2001; Westermand & Cyr, 2004). A body of research exist in the last two decades in which the person-job fit concept has been examined through perspectives of demand-ability (DA) fit and need-supply (NS) fit (Cable & DeRue, 2002; Ng, Eby, Sorensen & Feldman, 2005; Scroggins, 2007; Ashforth, Harrison & Corley, 2008; Tims & Bakker, 2010; Christian, Garza & Slaughter, 2011; Vahidi, Roslan, Abdullah, & Omar, 2016).

DA fit refers to the extent to which employee's knowledge, skills, and abilities are in accordance with those required to perform work tasks. An employee with low ability to overcome work demands would result in work processes to be less efficient along with low-quality output. On the other side, an employee whose abilities are superior for work demands may lose interest, feel bored, or apathetic due to lack of challenge (Csikszentmihalyi, 2000; Cable & DeRue, 2002).

In this study, DA fit is expected to predict innovative voice by triggering employee thriving at work. The first reasoning is that DA fit stated to prevent employees from stress and generates meaningfulness (Hackman & Oldham, 1980). At leaset it helps employee to survive which prepares a basis for later thriving. Secondly, positive feedback from job and others resulted from ability congruence may increase positive emotions (vitality) and reinforce learning. Last but not least, a balance between demands of work and employee abilities is known to result in realizing optimal functioning (Csikszentmihalyi, 1990), which is more likely to increase learning and adopting new skills. It can be asserted that DA fit predicts innovative work behavior via feelings of vitality and learning, in turn thriving at work. Hence, third hypothesis is stated as follows:

H_3: Demand-Ability fit positively relates to innovative voice through employee thriving at work.

METHODOLOGY

Participants and Procedure

Participants were Turkish-speaking white-collar professionals working in Istanbul, Ankara, İzmir, Adana, and Bursa which are metropolitans. Participants were picked via using both convenience and snowball sampling method (Huck, Cormier & Bouds, 1974), and filled out an online questionnaire. These methods are proper for this study since the study does not attempt to make inferences regarding population (Strangor, 2014). The link was sent by e-mails and distributed via e-mails and social media. The first page of the questionnaire contains a brief description of the research, an agreement form explaining the aim and scope of the study. All participants were required to agree with the terms and conditions

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of research before seeing survey questions. A total of 511 employees have participated but only 462 individuals (53% males) completed all questions properly in the study questionnaire. Of the participants, average age was 33 years (sd=6.78), average total working years was 15.47 (sd=9.49), average daily working hours was 9.1 (sd=1.7).

MEASURES

Innovative Voice Behavior

Innovative Voice was assessed using constructive voice subdimension of a Turkish translation, which was adapted by Ünler, Çalışkan, and Durmaz (2015), originally developed by Maynes and Podsakoff (2014). Five items asked participants to rate how frequently they engage in constructive voice behaviors. one sample item is “I make suggestions about how to do things in new or more effective ways at work” on a 1 (never) – 6 (always) Likert-type scale. The internal consistency for this scale was acceptable (Composite Reliability: .94, AVE: .76).

Thriving at Work

Employees thriving experiences were measured with the scale developed by Porath et al. (2012) but modified via taking the results obtained by Koçak (2016) into consideration. The Turkish translation had made by Koçak (2016). The scale consists of two sub-dimensions: vitality and learning. Although the original scale has ten items, five for vitality and five for learning; depending on previous studies, four items were used for each dimension excluding reverse items. A sample item for vitality is “At work, I feel full of positive energy”, and for learning is “At work, I acquire new skills.” The items were measured on a six-point Likert-type scale with anchors from 1 (strongly disagree) to 6 (strongly agree). The internal consistency for this scale was acceptable (Composite Reliability: .84, AVE:.72).

Demand – Ability Fit

DA fit was measured with Cable and DeRue’s (2002) scale which is comprised of two dimensions. In this study, only the DA fit was used which is assessed with three items. These items were translated using Brislin (1970) method showed good reliability (Composite Reliability: .88, AVE:.70). The items were measured on a six-point Likert-type scale with anchors from 1 (strongly disagree) to 6 (strongly agree). One sample item for this scale is “The match is very good between the demands of my job and my personal skills.”

Supervisor Support

Supervisor support was assessed with four items developed by Koçak (2014). These four questions asked participants to indicate how much their supervisors care, give feedback and resource, help and act in a warm way toward them. Validation studies performed on this scale revealed a single factor structure and acceptable internal consistency between α=.88 – 95 (Koçak, 2014; Koçak 2017). In this study the internal consistency was found acceptable as well (Composite reliability= .95, AVE: .81).

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Data Analyses

To test our hypothesis, we conducted structural equation modelling (SEM) analyses, using the AMOS software package (Arbuckle, 2008). The maximum-likelihood method was used to analyze the covariance matrix. We selected SEM as it allows to account for measurement error and gives fit measures of the models.

In the beginning, a confirmatory factor analysis was conducted to evaluate the theorized factor structure. Thriving at work was modelled as higher-order construct, indicated by vitality and learning. Variables were tested for convergent and discriminant validity. Thus, we specified the measurement model. After the reliabilities are determined, we estimated the intercepts, standard deviations and correlations between latent variables.

Second, the research model and hypothesis were tested simultaneously with a structural model (Bollen, 1989). The model for these analyses included two exogenous factors, Demand-Ability Fit and Supervisor Support.

The fit of the models was assessed with the χ^2 statistic, the root means square error of approximation (RMSEA), the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the standardized root mean square residual (SRMR). For CFI and TLI statistics, values of .90 or higher are acceptable (Hu & Bentler, 1999), and for RMSEA and SRMR for which values up to .08 indicate an acceptable fit to the data (Hair, Tatham, Anderson, & Black, 2010).

For mediation analysis, the bootstrapping method was employed with bias-corrected confidence intervals of 95% as suggested by Preacher and Hayes (2004). The indirect effects, direct effects and total effects were estimated.

ANALYSIS RESULTS

Preliminary Analyses

Data were normally distributed with kurtosis and skewness values which are between the interval of +1 and -1 (Tabacknick & Fidell, 2007). There were no missing values as participants who have missing values were eliminated before analysis. Means, standard deviations, correlations, and reliabilities are presented in Table 1. Given that age and marital status were significantly related with endogenous variables of thriving at work and innovative voice behavior, the research model also contains them as control variables. As tenure and age can show more experience on job, organization or market which are likely to inflate the effect sizes, these are added as control variables.

Measurement Model

Prior to testing the research model and hypothesis, construct validity of all variables was tested. Utilizing a confirmatory factor analysis (CFA), a second-order measurement model was tested to examine whether measurement items load onto the relevant scales. The results of the overall CFA showed good fit with the data; a χ^2=424.848 with 160 degrees of freedom along with other goodness-of-fit statistics (CFI=.973; RMSEA=.060; SRMR=.039) were obtained. Standardized factor loadings of items ranged from .84 to .97 and were significant ($p<.05$). Thus, a good support has been found for convergent validity.

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Table 1. Means, Standard Deviations, Correlations and Reliabilities

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Gender													
2. Age	33.00	6.780	-,163**										
3. Tenure	15.47	9.498	.050	-.017									
4. Daily working hours	9.29	4.551	-.078	.075	.058								
5. Marital Status			,219**	-,388**	-.045	-.079							
6. Supervisor Support	3.86	1.103	-.006	-.068	-.008	.055	.007	**0.93**					
7. Demand Ability Fit	4.24	0.989	-,153**	,155**	-.077	.031	-,105*	,365**	**0.87**				
8. Learning	4.08	0.905	-.064	.024	.061	.010	-.028	,459**	,564**	**0.95**			
9. Vitality	4.15	1.069	-.048	,121**	-.056	.041	-.055	,487**	,573**	,743**	**0.96**		
10. Thriving	3.85	1.125	-.076	,096*	-.005	.033	-.059	,590**	,697**	,908**	,931**	**0.95**	
11. Innovative Voice	4.38	0.851	-.080	,173**	.079	.009	-,096*	,407**	,442**	,500**	,497**	,619**	**0.94**
Square root of Average Variance Extracted (AVE)								*.902*	*.838*			*.848*	*.873*

N=467, M= Mean, SD=Standard Deviation. Cronbach Alpha coefficients are shown in bold on the diagonal. **p< 0.01 (2-tailed). *. p< 0.05 (2-tailed). AVE of Vitality and Learning dimensions were not calculated as Thriving at work was used as a high-order construct.

Also, discriminant validity was tested. Discriminant validity can be ensured through comparing square root of AVE of a respective variable with its correlation with other variables which is expected to be higher. As seen in Table 1, square root of AVE value of all factors exceeds correlation coefficients with other variables. Additionally, a first order model was compared with high-order model, but no significant difference was found, only few chi-square decrease ($\Delta\ \chi^2$=.420, Δdf=2). So, the second-order model is selected as it fits the theory better. Thus, it can be concluded that a good support has been found for discriminant validity.

Structural Model

The structural part of the model described in hypotheses was tested. Results showed that the model fit the data well (χ^2=531.018, df=179; CFI=.966; RMSEA=.065; SRMR=.037). examination of modification indexes reveals no suggested improvement for the model. 33% of total variance for the innovative voice and 51% of total variance of the thriving at work were explained.

Mediation Effects

In order to confirm mediation effect of thriving at work between independent variables and innovative voice behavior the bootstrap procedure was used as suggested by Preacher and Hayes (2004). In order to confirm the mediating role of thriving at work in the model, indirect effects were calculated. These indirect effects were estimated using 2000 samples bootstrap method with 95% confidence interval around the indirect effect. Table 2 presents the results of direct and indirect effects calculations performed on the model.

First, the positive relationship between thriving at work and innovative voice remarks that Hypothesis 1 is accepted. In addition, the results indicate a full meditation of DA fit to innovative voice and a partial

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Table 2. Direct, Indirect and Total Effects of the Research Model

Dependent		Independent		Direct Effect	SE (Direct)	95% CI (Direct)	Indirect Effect	SE (Indirect)	95% CI (Indirect)
Innovative Voice	<=	Thriving at Work	5.720***	.44***	.083	[.355-.517]	-		
Innovative Voice	<=	DA Fit	1.498	.09	.072	[.021-.163]	.22***	.053	[.170 - .271]
Innovative Voice	<=	Supervisor Support	2.257***	.12*	.059	[.062-.177]	.16***	.040	[.129 - .206]
Thriving at Work	<=	DA Fit	9.595***	.50***	.062	[.434-.557]	-		
Thriving at Work	<=	Supervisor Support	7.754***	.37***	.056	[.320-.432]	-		
****p<.001; **p<.01; *p<.05*									

mediation of supervisor support to innovative voice by thriving at work. Both paths have significant indirect effects (see Table 2), however, the direct effect of supervisor support was still significant when controlling for thriving at work. Therefore, Hypothesis 2 was partially supported while Hypothesis 3 was supported.

Additional Analysis

In order to see details how gender plays a role in the model, a multigroup CFA and structural model was run. Diverge results between males and females on how DA fit and supervisor support effects innovative voice behavior via thriving at work was expected. Since, previous research suggests gender differences worth to note in workplace-related studies in Turkish setting (Koyuncu & Burke, 2006; Kara, Uysal & Magnini, 2011; Sari, 2004). While some studies state the male dominance, they emphasize that women are offered less economic conditions along with glass ceiling and they are exposed to patriarchal mentality of society (Önder, 2013; Soysal, 2010; Öğüt, 2006). Moreover, according to the Kabasakal, Aycan, Karakaş and Maden (2011) women in Turkish work culture tend to abstain from coming to the forefront, have a mid-way feminine appearance, have a resilient personality, balance work/home life. Therefore, it was expected that male and female may give a detailed view about the hypothesized relationships.

The results of the multigroup structural model showed a good fit the data (χ^2:784.673, df:358, CFI:.958, RMSEA:.052, SRMR:.043). Unlike the first model, thriving at work fully mediated the relationships between both supervisor support and DA fit and innovative voice. The direct effects of DA fit and supervisor support were not significant when thriving at work was added to the model. While for males the direct effects of DA fit and Supervisor support on thriving at work are closer (βDAfit=.46, βSup=.50), however, for females the DA fit, comparing to supervisor support, has superior effect on thriving at work (β_{DAfit}=.53, β_{Sup}=.26). Also, the direct effect of thriving at work on innovative voice was stronger for females (β_f=.56, β_m=.36). Approximately, 61% for males and 45% for females of the variance in thriving at work was accounted by DA fit and supervisor support, meantime, 30% for males and 40% for females of the variance in innovative voice was accounted by the predictors. For males, the results of bootstrap estimation approach with 2000 samples indicated the indirect effect coefficients were significant (γ_{DAfit}= .18, SE= .075, 95% C.I.= .11, .26; γ_{Sup}= .19, SE= .076, 95% C.I.= .11, .27). For females, the indirect effect coefficients are higher for DA fit (γ_{DAfit}= .30, SE= .081, 95% C.I.= .23, .39; γ_{Sup}= .15, SE= .061, 95% C.I.= .10, .22).

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SOLUTIONS AND RECOMMENDATIONS

In this study, a serial link between being prosperous in the workplace -which is expected to be triggered by both task-oriented and relationship-oriented facets of job- and displaying innovative voice behavior has been established. Additionally, gender differences are emphasized, such that DA fit is found to have higher indirect effect for females.

Organization designers or managers should acknowledge that employees are the main nurturers of the organizational innovation. They tend to contribute to the organization via speaking up novel ideas and come up with new suggestions about how to improve deficits or use strengths more effectively. This study showed that job should be designed in a way that nourish employee thriving. In the design, relationship qualities among employees and the congruence of the employee abilities with what job require should be taken into account.

FUTURE RESEARCH DIRECTIONS

This study has some shortcomings such as others in this field. First, this study employed a cross-sectional design which is not enough to posit any causal relationships. But at least gives an opportunity to compare the effects. Second, all data were collected based on self-reports, which may call into doubt for common source bias and social desirability. However, it was unable to collect the data regarding thriving at work, supervisor support and person-job fit, as they represent one's attribution and feelings.

Another limitation is the sampling method. Since the sampling process was started with using a nonprobabilistic method of convenience sampling and then sample size was expanded via snowball sampling method, the results can not be generalized to the all working population.

Additionally, a longitudinal or multilevel diary design would provide better reliability for results and give detailed information; in particular for the path from supervisor support to voice behavior through thrivin at work. For example, a week level diary design with at least 100 participants would let both within-person and between-person analyses.

For future studies, some additional underlying mechanisms can be tested beside thriving such as employees' organizational identification, affective commitment, or work engagement. Beyond individual-level constructs, other climate related ones such as psychological safety may serve as a complementary mediator for supervisor support. The partial mediation between supervisor support and voice behavior should be studied in detail. Lastly, this model should be tested for different samples as the results showed that gender disaggregation has given the full mediation between supervisor support and voice behavior while full sample had given only partial

CONCLUSION

The aim of this research was to investigate how employees can contribute their organization's innovative capacity via displaying constructive voice. As antecedents of innovative voice, a relationship-oriented variable and a task-related variable were selected, namely supervisor support and congruence between job demand and individual ability. Therefore, the first research question was whether relationships or

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proficiency plays more important role in this process. More specifically, this study emphasized how these two variables can lead to innovative voice. For this reason, thriving at work, which is a relatively new concept was suggested to be a possible underlying mechanism that mediates this relationship. Therefore, one hypothesis for thriving's direct effect, and two mediation hypotheses for predictors' indirect effects via thriving were set.

The findings provided a strong support for the first hypotheses. Such that, thriving employees were more likely to exhibit innovative voice. First, this finding confirms that thriving at work is one of the key antecedents of innovative behavior via its components which emphasize both positive affect (vitality) and cognitive processes (learning) (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005; Carmeli & Spreitzer, 2009). Previous studies on thriving at work usually suggest outcome variables of individual psychological states, attitudes or in-role performance while this study suggests it also triggers extra behaviors such as voice which is risky to some extent.

Furthermore, the results showed that thriving at work fully mediated the relationship between DA fit and innovative voice, supporting the third hypothesis. This result is consistent with the previous studies and confirms the suggested model of Spreitzer et al. (2005), as DA fit which may represent individuals task focus, help employees not only survive at work but also experience an upward trajectory. When employee abilities are congruent with what his/her job tasks require they are more likely to exert extra effort. This result shed light on a new pathway. Cable and DeRue (2002) state that DA fit is not expected to relate to organization-based behaviors. However, this study showed that employees who have DA fit are more likely to speak up about organizational issues constructively, which might be beyond their own task scope, as they tend to feel more vitality and learning while working. This finding is controversial to the study of Cable and DeRue (2002).

However, on the other side of the model, only partial mediation was found, as the direct effect of supervisor support on innovative voice remained significant, but not higher than indirect effect. So, the second hypothesis was partially supported. This result is consistent with the previous studies such that relationship dynamics with supervisor/leader effect employee behavior via both changing individual's psychological states and changing the climate they perceive (Scott & Bruce, 1994). To enlighten the underlying mechanism more, any other climate-based such as psychological safety or empowering concept such as autonomy need support should be considered for innovative voice behavior, beside thriving at work. This study reveals that supervisor support lead to resource transfer to subordinate which fuels them to be equipped with feelings of vitality and learning. In turn, employees feel that they are competent enough to exert risky behaviors such as innovative voice. But the thriving experience explains to some degree how this relationship occurs. The direct effect of supervisor support had still remained significant.

Additional analysis about how gender groups differ in this model has given similar results only with one exception; thriving at work fully mediated the relationship between both DA fit and supervisor support and innovative voice. In overall sample model, thriving had only fully mediated the effect of DA fit, but when disaggregating sub-samples of gender has showed that it also fully mediates the effect of supervisor support.

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KEY TERMS AND DEFINITIONS

Bootstrapping: This is a statistical technique which allows assigning measures of accuracy (defined in terms of bias, variance, confidence intervals, prediction error, or some other such measure) to sample estimates. This technique allows estimation of the sampling distribution of almost any statistic using random sampling methods.

DA Fit: It refers to the demand-ability fit which indicates what extent do the employee abilities fit with what his/her job requires.

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Section 4

Section 4

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Chapter 22
Three Horsemen of the Markets:
On the Perspective of Schumpeterian Revolution in the Nexus of Finance-Innovation-Competition

Gönül Yüce Akıncı
Ordu University, Turkey

ABSTRACT

The purpose of this chapter is to examine the impact of technologic improvement and financial development on competitive power in the 28 member countries of the European Union using panel geographically weighted regression analysis for the period of 2004-2016. The findings of the analysis, which show that increasing technological development accelerates the competitive power, support the Schumpeterian hypothesis, revealing that the impact of technology on competitiveness could accelerate with the contribution of the financial sector. In addition, findings reflecting the fact that the foreign trade which has been strengthened via technical development increases the competitive power show that the level of globalization has a contribution to this process, also. It has been observed that securing the property rights and applying the effective patent regimes leads to competitive advantage, and the economic integration process of the European continent has strengthened the competitive force.

INTRODUCTION

Mankind who made the first breakthrough of world socio-economic history with the Agricultural Revolution, were fed by a continuous social and economic development since the prehistoric times. Countries that left behind the collective movement to increase social prosperity and wealth fenced around their selves and tired to expand this fenced-in area with a competitive structure. In such a period the countries entered into a new social transformation and realized the Industrial Revolution. Capitalism therefore began to feel its influence more strongly since the mercantilist era, in which its bases were implicated. With the Industrial Revolution, the high level of prosperity and competitive advantages capturing for world economies in an unprecedented manner was often linked to an increase in production factors and the influence of the physical capital on the wealth of the countries became more emphasized. Countries

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that were in a subsistence and stable life until the Industrial Revolution left the door of a period in which every economic and financial policy application was regarded as a licit process in order to reach the level of wealth and prosperity and in achieving this goal, the race to gain competitive power became effective. The coordination between the monetary systems of countries were tried to be established to obtain the power. The application of the golden monetary system which operated continuously and relatively efficiently to develop the process of financial system as well as to expand trade flows among countries in the period from 1870 to 1914 has been interrupted by two world wars and the Great Depression. The trade and currency wars that emerged in order to obtain competitive advantage led to the creation of economic blocs and the world economy entered a period when the liberal policies being suspended. In order to reverse the negative socio-economic conjuncture which were manifested in the declining economic, financial and monetary mechanisms the Bretton Woods system was established In 1944, the so-called golden age of capitalism was entered, and economic and financial associations were formed to capture the competitive advantage. The foundations of these associations were strengthened with the help of theories that emphasized the importance of physical capital in increasing the prosperity of the country, but only one piece was needed for the whole picture to be seen: *The measurement of our ignorance.*

The Scientific Revolution helped countries that need a new transformation in order to increase their competition power, which gained great importance to raise the level of welfare and the lost part of the roots of our wealth, or in other words, the dark face of our ignorance is illuminated. Since the 1980s, the importance of technological progress to *rise over the shoulders of the giants* gained momentum and the evolutionary transformation of the Schumpeterian view was achieved economically and financially in order to reach competitive advantages. Schumpeter (1911) asserts that efficient financial markets encourage technology, innovative actions and competition by driving and fund raising entrants with the best opportunities of triumphantly applying innovative goods and manufacture process. Schumpeter and his followers support a liberalized financial mechanism which can mobilize a raised level of financial austerity and allot capital to further prolific uses; both of them increase the level and efficiency of physical capital, strengthen competitiveness and therefore promote the process of economic growth (Luintel & Khan 1999). Consequently, it can be argued that a well-developed financial system has two objectives: to drive economic resources from conventional industries to modern ones and to support and encourage the spirit of enterprise or competitive power in the modern industries. Financial intercessor that drives economic resources from conventional industries to modern ones is similar to the Schumpeterian notion of innovative finance. In this context, technological development enabled countries to rise over the shoulders of the giants on the on hand, and on the other hand it emphasized that the production of information and technology evolved with very difficult processes and that *the fishes were consumed*. In other words, the importance of technical development were mentioned in order to obtain competitive advantages and then some new concepts came to light such as learning by doing, updating the capitalist system to bring up the imperfect competition structure, accumulating knowledge, developing human capital, and the dominance of financial capital and monopoly capital markets.

The globalization process that sets the stage for the transformation of the world into a global village opened the way for the deregulation process by enabling the integration of economic and financial markets and the in order to obtain higher profits international capital, which is regarded as a scarce resource, reached the ability to move freely among countries. At this point, however, a major axis shift raised and the technical development resulting from the contribution of human capital and research and development process substituted for physical capital which was claimed to have a dominant role in achieving competitive power. Therefore, technological innovations which were called as *manna from*

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heaven came to be seen as a factor emerging from active market structure in the real world. In other words, innovation-based technological developments, which were thought to be more important than physical capital inflows, were the most basic inputs for international diffusion and competitive advantages. Countries that achieved a great structural transformation by using these basic inputs were able to remain as the main force in the global system, where competition was intense and reached the peak of the development stage. In this context, the countries that lead the technological development, arising mainly from education and professional experience, with the help of various socio-economic policies, started the processes of deindustrialization in parallel with the contributions of the development of financial sector and of the high shares of research and development expenditures on the one hand and tended to diverge from other countries on the premise of finance capital. In other words, the developed countries that gained the competitive power in the light of technical development began to diverge from underdeveloped countries and the world economy entered into the formation of two separate groups of countries, developed and underdeveloped. In order to protect monopolistic interests, perfect competition markets which are mainly thought as a hypothetical structure were prevented and with the help of imperfect competition networks, accumulation of knowledge leading technological progress became a kind of good that is excludable. This socio-economic transformation, which puts individual utility beyond social utility and leads to the strengthening of the capitalist structure, accelerated the uneven development, causing the hegemony structure to face with economic crises frequently. This mechanism, which directed the advantage of competition to the countries producing technology through foreign trade, pioneered uneven development process not only within countries but also between countries. Undoubtedly, the factors that lead to this process stem from a variety of factors, but the role of technical development and competitive advantage seized by technology has reached the position of the fundamental truth of today's world. In addition, providing institutional transformation together with active government policies has ensured the consolidation of competitive advantages and hence the attainment of full wealth. In this way, countries that produce technology through product and process innovations and who are able to implement effective policies to sustain of these advantages can easily get the competitive advantages and are able to get an upper level in hierarchical structure, which is the ultimate result of the globalization process. As emphasized by Krugman, economies that have benefited from technological advancement in order to reach a higher level of produced commodities ladder can take a step in the upper echelon of the countries ladder, also. Therefore, it is possible to say that today's global world consists of the trilogy of finance-technology-competition.

The aim of the section is to examine the effect of technologic improvement and the development of financial markets on competitive power in 28 member countries of the European Union applying panel Geographically Weighted Regression Analysis for the period of 2004-2016. The findings of the analysis, which show that increasing technological development accelerates the competitive power, support the Schumpeterian hypothesis, revealing that the impact of technology on competitiveness could accelerate with the contribution of the financial sector. In addition, findings reflecting the fact that the foreign trade which has been strengthened via technical development increases the competitive power show that the level of globalization has a contribution to this process, also. Besides, it has been observed that securing the property rights and applying the effective patent regimes leads to competitive advantage, and the economic integration process of European continent has strengthen the competitive force.

This study consists of 7 different sections. In this section, general introduction related to linkages between technology, finance and competition is given. In addition to this issue, similar studies in the literature are assessed in the second section and the missing part in the literature is underlined as a result

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of this analysis. Therefore, methodological information, data set and econometric model in introduced in the third section and in the fourth section, an econometric analysis is performed for the EU member countries. In the fifth section, solutions and recommendations are introduced and in the sixth section, some suggestions for the future researches are expressed. Finally, the paper comes to an end with the conclusion section where necessary recommendations are given based on the results of analysis.

LITERATURE REVIEW

The linkage between competition, innovation and technology has attracted more interest among economists since the seminal work done by Schumpeter (1911). Schumpeter (1911) asserts that efficient financial markets encourage technology, innovative actions and competition by driving and fund raising entrants with the best opportunities of triumphantly applying innovative goods and manufacture process. Therefore, it is emphasized that the competition power can be increased with the cooperation of technology and financial sector. Since then, although numerous theoretical backgrounds have been introduced, the controversial nature of the subject has remained unchanged. For example, according to Aghion et al. (2002), the linkage between competition and innovation is an inverted U-shape: competition level can raise innovation and technical improvements until a certain technology threshold point, but beyond this point more competitiveness are useless to gain technological and innovative improvements because of decreasing monopoly profits. The validity of the reversal of the expressed relations has been shown in some studies. As it can be understood, the theories put forward by Schumpeter and Aghion et al. are contrary to each other. Besides, despite the significant impact of the financial sector development on the volume of competition, very few studies have taken into account the simultaneous impact of finance and technology on competition. In addition, most of the studies in the economic literature have assessed the effect of technology or finance on competition in the context of sector or kinds of goods and hence they have remained as micro-level studies.

Therefore, this study is superior compared to other studies in the literature; because it investigates the simultaneous impacts of technologic improvement and development of financial markets on competitiveness and these linkages are evaluated in the context of macro-level. Table 1 presents the summary of economic literature on the nexus of finance-technology-competition.

DATA SET, ECONOMETRIC METHODOLOGY AND MODEL

In the section, the linkage between development of financial markets, technology and competitive power is investigated applying Geographical Weighed Regression (GWR) model for the European Union (EU) member countries in the period of 2004-2016. The main reason for taking this period into consideration is the ability to access the data. To examine the competitive power of the EU member countries, Global Competitive Index is taken into account. The index identifies competitive power as the set of institutions, policies and the indicators that determine the volume of a country's productivity. In order to calculate the index 12 different aspect of competitiveness are used. The index, then, is estimated on a scale from 1 to 7, indicating 1 is the lowest and 7 is the highest. Besides, to identify the technology level of the member countries, Government Budget Appropriations or Outlays on R&D (GBAORD) data set are used. This data set measure government support to research and development activities or how much governments

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Table 1. Literature Review

Author	Country	Time Span	Method	Result
Fagerberg (1988)	15 OECD Countries	1961-1983	Panel Data Analysis	The results show that in the medium and long run, indicators relevant to innovation and effective capacity are important for market shares, growth and competitive power, while price or cost competitiveness has a very limited role than often assumed.
Narula and Wakelin (1998)	40 Developing and Industrialized Countries	1975-1992	Panel Data Analysis	Technological improvements, and the development process of the country, are shown to be two of the important indicators of competitiveness. The paper concludes that country indicators are evenly influential in stating trade and foreign direct investment, but that in the case of developed countries there are additional indicators, as industry specific advantages in competition. For developing and emerging countries, competitive advantages of their firms might be more relevant to their country features, because their export operations seem to be expressed by a composition of country-level indicators.
Kumar and Chadee (2002)	8 Asian Countries	2001	Cross-Section Analysis	Worldwide competition is impacted by the human resource orientation of firm, extent of innovative progress, structure of organization, industrial objectives of state, capital accession, alongside the degree of the financial development. The paper argues that chasing the dynamic improving which permits industries to sustain their competitive power can be obtained by the concept of learning. The paper suggests the necessity of giving additional interest to certain qualificative way of industry operations like connections with external agents and institutional regulations in which they manage. Hence, alongside the micro indicators of competitive power, this study also asserts the important role of the state in illuminating markets and in building a strong national mechanism of innovative thinking and technology.
Hanif and Jafri (2008)	Pakistan	1974-2004	ECM	The findings propose that appeal to outward financing has a strong positive effect on the competitive power of the country's textile sector in the short and the long term. In addition, a negative linkage between exchange rate and textile sector competitiveness of Pakistan is found; and the positive linkage between production of cotton and competitiveness index for textile industry are found.
Bos et al. (2009)	The USA	1984-2004	Two-Step GMM	The findings of the study assert an inverted-U linkage between competitive power and technology in the U.S. banking sector. Besides, it is shown that deregulation of interstate banking negatively impacts competitive power. This study infers that further decrease in competition can negatively impact the innovation motivations of banks in the future.
Dosi et al. (2013)	15 OECD Countries	1989-2006	OLS	The findings of the analysis point out that technology and innovation are related indicators in expressing trade models and competition among countries. On the contrary, labor expenditures have an uncertain impact on the shares of export market: that have a negative sign in two industries, while in most situations they are either positive or not significant. Findings recommend that industrial market shares of the countries are formed by innovation. Findings also point out that in most of the industries investments and patent rights correlate positively both with the possibility of being an exporter and with the capacity to obtain and to raise the shares of export market and competition.
Şener (2013)	Turkey	-	-	It is noted in the paper that the Turkish economy have to improve the competitiveness level by enhancing macroeconomic environment, advanced education, innovation, technological readiness, macroeconomic structure, efficiency of labor market, institutions and efficiency of real market. In these circumstances, the author suggests that it is vital for the Turkish economy improve competitiveness level to obtain sustained long term growth process.
Hchaichi and Ghodbane (2014)	Tunisia, Morocco, Egypt	1995-2010	Panel Data Analysis	In this study, it is said that competitiveness is determined with the help of a price and non-price factors. The result of the analysis shows that innovative strategies, capital in human resources, FDI and exchange rates have a statistically significant effect on competition power. It is also clearly noted that the promotion of innovation process proceeds through the accumulation of expenditure on research and development and investment in human capital. Incentives to foreign investment and currency devaluation also prove as a spearhead to seize market share in a global competition. This study supports the idea that innovation is more than a strategic option but it's seems a necessity. The paper noted the importance of innovation in firm's development which affects international competitiveness. Moreover, in a globalized context, innovation is the preferred means to stimulate exports and earn a competitive advantage.
Gutu (2014)	Moldova	2010-2013	Time Series Analysis	The paper tries to analyze the dependence of the competitive power econometrically and the dynamisms of macroeconomic indicators relevant to growth process and living standards, patterns of economy, the foreign trade openness and innovative capacity of the economy, shapes of government arrangement of the economy, the volume of transparency and government efficiency. Innovation and technical improvements are found as important factors affecting the competitiveness. The author suggests making analysts and specialized works concerning the competitive power and government in the Republic of Moldova, compared to the candidate members of the EU in precedence fields, like: foreign trade, information and communication technologies, sustained development and protection of environment, research, development and innovative strategies, education and health, effectiveness of public management and tourism.
Appiah et al. (2015)	Ghana	2014	Survey Analysis	The main findings suggest that state support policies, access to financial resources, technologic improvement, innovation process, entrepreneurial indicators, and the SME's exporting destinations have a positive effect on the competitiveness of SME horticultural exporters in international markets.
Karabıyık (2015)	China	-	-	It is crucial to know the indicators of international competitive power for the Chinese economy to obtain sustainable path of development process on a large competitive scale of world economic situation. The finding of the work points out that the Chinese economy has strong international competitive power determinants beside some argumentative determinants. The Chinese economy is gaining more competition power by advancing bottlenecks and constitutional challenges. Besides, the Chinese economy must convert itself from cheap labor-intensive competition power into high-tech innovative country with advanced human capital to obtain sustainable growth process in the long run.
Rusu and Toderascu (2016)	The CEE Countries	-	-	The paper point out that to raise their international competitive power, the countries located in CEE areas have to develop the institutions, financial markets, efficiency of labor market, health and primary education, business versatility and innovative managerial thinking.

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Table 1. Continued

Author	Country	Time Span	Method	Result
Despotovic et al. (2016)	20 European Countries	2006-2015	VAR Analysis	Innovation and technical improvements are found as important factors affecting the competitiveness. The results of the cluster analysis point out the density of the gap between leaders of innovation and learners of innovation. The graphs of time series for all of the clusters, according to determinants of innovative power, with average values per cluster have been regulated, indicating also the trend lines for all of the clusters. Statistically significant interdependency is found among the series taken into account. Additionally, by means of simple linear regression, the effect of innovation on per capita GDP of the observed group is investigated. It may be said that, as well as the enunciated gap between the obtained volumes of innovative power of the examined groups of countries, there is a positive effect of innovative power on the obtained volume of per capita GDP, denoted in the purchasing power of the local currency on the part of the group of innovation "learners" in the defining period of time.
Akis (2016)	Developed and Developing Countries	-	-	Countries that have to raise their competition level should gain the dynamic competitive power that depends on high research and development depth, high innovative ability and high added value of production. Innovative power is regarded as one of the most important factors both for countries and the sectors to gain competition at national and global areas, to ensure an increase in efficiency, growth and development process, therefore raise of the wealth and quality of life. In this sense, number of patents and research and development activities as the determinants of innovative power has acquired enormous importance. That is to say, it is an inevitable event that those technologic companies, sectors, industries and countries which spare higher research and development expenditures, and which obtain more patents and newer goods. Countries that want to raise their competition should not only focus on innovative process, but they should also develop themselves in fields like infrastructure, macroeconomic determination, health, education and training, productivity of real and labor market, development of financial market, technologic readiness, size of markets and development of business structure as defined in the competition index.
Doğan (2016)	The EU Member Countries	2011-2015	Panel Data Analysis	It is argued that pioneering occurrence of new markets and widening competition fields make innovative process the basis of growth and dynamism in all of the economies. In this context, innovative power which generates important effects in a way that raising and supporting competitive power can also generate affects that will change qualification of competitiveness in goods and services markets. The results have pointed out that two indicators of innovative power, knowledge & technology production and creative output, positively impact competitive power.
Muratoğlu and Muratoğlu (2016)	12 OECD Countries	1999-2010	Panel Data Analysis	In this paper, revealed comparative advantage index for manufactures exports is firstly estimated. Then panel data analyses are applied to determine the impacts of physical capital, labor expense, infrastructure, research and development, the high-tech exports share and foreign direct investments inflows on export competitive power of manufactures. The findings of the work show that traditional variables, namely physical capital, labor expense, and infrastructuremostly specify the export competitive power of manufacturing industry in OECD countries. Besides, FDI inflows to the manufacturing industries have not promoted positively to the export competitive power of OECD countries. The findings of the study indicate that research and development variable and the high-tech exports share have shown positive effects on export competitive power of manufacturing sector.
Siddik (2018)	130 SMEs in Bangladesh	2017	Logit	The aim of the study is to find and clarify indicators of global competitive power of SMEs from a developing country, Bangladesh. Findings propose that the access to finance, entrepreneurial parameters, state policies and technological indicators are important indicators of exports and competitiveness of SMEs.
Rusu and Roman (2018)	The CEE Countries	2004-2016	Panel Data Analysis	The determinants affecting the competitiveness are GDP, inflation rates, taxes, costs, FDI, trade, labor productivity and foreign direct investments. Specifically, the findings point out significant differences among countries, but also some similarity. Although all the regarded countries are developing ones, the indicators that have an important effect on the competitive power vary significantly. Thereby, if for efficiency-driven countries, GDP, inflation, openness, labor productivity and expenses are significant indicators of competitive power, for innovation-driven countries the indicators of competitive power are: GDP, inflation, tax rate, FDI, openness and expenses.

place on the public funding of R&D. Therefore, total GBAORD as a percent of total general government expenditure is taken into consideration as a proxy of technology. The other important variable affecting competitive power is the financial development process. Because of its wide concept, it is difficult to determine how to measure the financial progress. In this study, in order to calculate the development level of financial markets in the EU member countries, the domestic credits to private sector provided by banking sector as a percent of GDP is used. Although there are some other indicators to calculate financial development process such as the ratio of broad measure of money to GDP, the ratio of total bank deposits to GDP and the ratio of financial system deposits to GDP, the studies focusing on the measure the financial development level generally use domestic credits as a proxy of financial development. As Clarke *et al*. (2006) noted, this determinant seems a good deputy variable for the extent to which agents in private sector have ability to access to financial intermediation or to loans. Following Clarke *et al*. (2006), Beck *et al*. (2007), Ang (2010), Yüce Akıncı *et al*. (2014) and Park and Shin (2015), the domestic credits to private sector by banks as a percentage of GDP is used for the deputy of financial development. As well as determining the main indicators, it is also important to introduce some control variables that can affect the competitive power of the countries. The export level measured as the share of exports by the member state to the EU countries is taken into consideration as a deputy for the vari-

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able of economic integration. Under the light of the information, it may be asserted that the economic integration process increases if the volume of trade between the countries in the union increases as a proportion of their total trade and *vice versa*. Besides, following Afonso et al. (2010), we test the effect of economic crisis on the competitive power by using a dummy variable, which shows the situation of the economy, "crisis" or "normal". In this context, economic crisis is taken into account as a dummy variable that takes the value of "1" if an economic crisis occurs in the starting and the following year of the crisis, and takes the value of "0" in other situation. In addition, to estimate the effect of globalisation on competitiveness, KOF Index of Globalisation is utilized. This index consists of three dimensions that are defined as economic, political and social globalisation. Three different kinds of globalisation index are translated into an overall globalisation index on a scale of 1 to 100, where 1 indicates the minimum and 100 represents the maximum level. Therefore, it can be said that the higher the value is, the greater the degree of globalisation becomes. Besides, the level of foreign trade affecting the competitiveness is used and calculated as the ratio of the sum of exports and imports of goods and services to GDP. Finally, since one of the most important indicator affecting the competitive power is the protection process of intellectual property rights, the index considering the level of property rights introduced by Heritage Foundation is used. Property rights index is graded on a scale from 0 to 100, indicating 0 is the lowest and 100 is the highest mark.

The data constituting the time series are obtained from the official websites of World Economic Forum, EuroStat, World Bank, KOF Swiss Economic Institute, UNCTAD and Heritage Foundation.

The main feature of this study, which makes it superior than all other studies in literature, is the examination the Schumpeterian hypothesis in an evolutionary point of view on the basis of finance-technology-competition in the EU member countries, where the highest intensity of competition are observed. As it can be understood, the relevance of the level of competition to financial development and technology allows for a more comprehensive examination of the Schumpeterian perspective. This feature is of great importance in the context of the question of the power of the Schumpeter revolution and of economic indicators that influence the level of competition level. This process contributes to the actuality of study via the application of GWR analysis, which is considered as a new technique in econometric methodology, and a wide dataset.

Since the level and the power of competition are so high in the EU member countries, the economic gains from competitive power reach at much higher levels in those countries. For this reason, while investigating the economic determinants of competition, the analyses assuming that all of the EU member countries have similar structural characteristics might cause relatively misleading results. Thus, it is very important to examine the determinants of competition level, which condense in different ways in different countries, by locally differentiating parameters. GWR is one of the main techniques based on the econometric estimation of locally differentiating parameters. In the paper, to determine the linkage between development of financial markets, technological improvement and competition power in the EU member countries, the methodology developed by Öcal and Yıldırım (2010) is utilized.

GWR analysis, which includes a nonparametric spatial model process, uses subsampling data and is based on the local linear regression tests in order to produce the estimation process for each point in the space. This approach considers the distance-based weighing and enables parameter estimations for every parameter and geographical regions. Within this context, the GWR analysis enables obtaining local parameters for every province in dataset, and such an analysis is considered to be a superior method when compared to other methods discussing the entire dataset without any discrimination between the cities. In GWR analysis, the individual regression of each province is weighed according to their spatial

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proxy levels. Thus, the spatial change in the parameters is smoothed according to the spatial weights, and the wide range of regional differences in the parameters is eliminated (Öcal & Yıldırım, 2010: 483).

The GWR analysis is an extended model of the Least Squares (OLS) method, which is the weighting of observation values in the form of a function of distance between coefficient estimates of a region and other regions. Thus, the parameter estimations become specific for space *i* as emphasized by Fotheringham et al. (1997). In general, GWR model is expressed as follows;

$$Y_{it} = \alpha_{it0} + \sum_{k=1}^{p} \alpha_{itk} X_{itk} + \varepsilon_{it} \tag{1}$$

Y taking place in regression equation (1) as dependent variable consists of the combination of X_{itk} independent variables ranging up to $k = 1, ..., p$. ε_{it} takes place in the equation as “white noise error coefficient” having mean value of 0 and constant variance. α_{itk} represents coefficients of regression for every location *i* and variable *k*. α_{it0} represents the constant variable of the model. The local estimations to be obtained using regression equation (1) are determined by utilizing the weighed regression model’s solution to be established by weighing the observations, which are the function of distance of location *i* to other locations. The parameter vectors in location *i* are obtained,

$$\hat{\alpha}_{it} = \left(X^T W_{it} X\right)^{-1} X^T W_{it} Y, \qquad i = 1, ..., n \tag{2}$$

W_{it} in regression equation (2) represents the local spatial weight matrix for every observation. The main component in parameter estimation process of GWR analysis is to prepare the weight matrix representing the importance of every observation between the locations. In spatial analysis, it is generally accepted that the location *i* will affect a closer location more. Thus, while estimating the parameters in location *i*, it is necessary to assign more importance to the locations closer to location *i*. From this aspect, a natural way of determining weighing matrix is to execute the 1/d process called reverse distance criterion. *d* in this process represents the weight between locations *i* and *j*.

The weighing matrix for location *i* is generally created by excluding the observations of farther locations when compared to a specific distance. In case that the distance from *i* to *j* is longer than distance parameter having the threshold of *d*, the weight of 0 should be assigned to the observation *j*: (Öcal & Yıldırım, 2010: 484)

$$\text{For Every } i, j = 1, ..., n \begin{cases} W_{ij} = 1 & \text{if} \quad d_{ij} \le d \\ W_{ij} = 0 & \text{if} \quad d_{ij} > d \end{cases}$$

After obtaining the weighing matrix, the GWR parameters can be achieved by using different α coefficients to be selected according to the values minimizing the sum of residuals’ squares:

$$\sum_{i=1}^{n} \left[Y_{it} - Y_{it}^{*}\left(\alpha\right)\right]^2 \tag{3}$$

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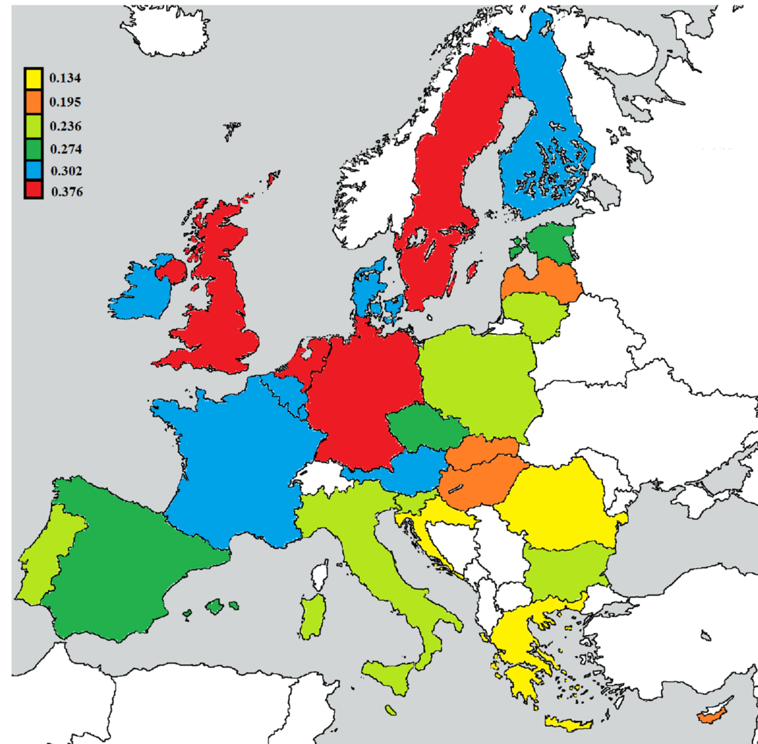
Figure 1.Spatial Distribution of Beginning Period Competition Coefficients



$Y^*_{it}\left(\alpha\right)$ in equation (3) represents the harmonized values of Y_{it} in location *i*. Since the harmonized values of Y^*_{it} are the linear combinations of Y^*_{it}'s X_{it} and $\hat{\alpha}_{itk}$ parameters, it is based on estimation of every α_{itk} location (Öcal & Yıldırım, 2010: 484).

To determine the linkage between competitive power, development of financial markets and technological progress in the EU member countries, equation (4) can be used as follow:

$$\begin{aligned} Competition_{it} = {} & \alpha_0 + \alpha_1 Finance_{it} W_{it} + \alpha_2 Technology_{it} W_{it} + \alpha_3 Openness_{it} W_{it} \\ & + \alpha_4 Integration_{it} W_{it} + \alpha_5 Globalization_{it} W_{it} + \alpha_6 Int.Property_{it} W_{it} \\ & + \alpha_7 Crisis_{it} W_{it} + \alpha_8 (Finance_{it} x Technology_{it}) W_{it} \\ & + \alpha_9 (Opennes_{it} x Technology_{it}) W_{it} + \varepsilon_{it} \end{aligned} \tag{4}$$

The constant term of α_0 in Equations (4) represents the gradient parameter of α, while W_{it} represents the geographical weighing of location *i* and ε_{it} represents the white noise error term.

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Table 2. OLS and GWR Results on the Linkage between Competition, Finance and Technology

Dependent Variable: Competition						
Variables	**Minimum**	**Lower Quartile**	**GWR**	**OLS**	**Upper Quartile**	**Maximum**
Constant (C)	7.164	7.446	6.113 (0.253)	5.775 (0.0.378)	9.881	10.053
Finance	0.185	0.191	0.556*** (0.000)	0.330** (0.027)	0.665	0.743
Technology	0.400	0.433	0.683*** (0.001)	0.447* (0.070)	1.643	1.980
Openness	0.063	0.111	0.153* (0.088)	0.014 (0.886)	0.334	0.440
Integration	0.116	0.224	0.231* (0.066)	0.097 (0.559)	0.441	0.488
Globalization	0.233	0.301	0.349** (0.036)	0.311* (0.082)	0.412	0.460
Intellectual Property	0.339	0.374	0.511*** (0.003)	0.402* (0.053)	0.456	0.533
Crisis	-0.036	-0.025	-0.011* (0.073)	-0.060 (0.255)	0.074	0.114
Finance *x* Technology	0.459	0.502	0.788*** (0.000)	0.456** (0.027)	0.889	1.206
Openness *x* Technology	0.186	0.224	0.263* (0.061)	0.115 (0.455)	0.313	0.368
R^2			0.774	0.389		
F-Stat			8.006***	4.411*		
Prob (*F*)			0.000	0.072		
DW			1.989	2.266		
AIC			3.553	3.993		

Note: ***, ** and * indicate significance at 1%, 5% and 10%, respectively. Probabilities are given in parentheses.

ANALYSIS RESULTS

GWR analysis is utilized to determine the linkage between competitive power, development of financial markets and technological progress in the EU member. In parallel with this objective, Table 2 represents the results of GWR analysis regarding the nexus of competition-finance-technology and Figure 1 represents the spatial distribution of *Competition* variable's coefficient. In order to enable the comparison, the analysis results show both OLS (global coefficients) and GWR (local coefficients) model estimation results.

Figure 1, where the effects of previous values of *Competition* variable on the level of competition in current period are shown, indicates that the values of competition in previous periods ranged between 0.134 and 0.376. Figure 1 is an important indicator, because it represents the power of competition level in the EU member countries in western, northern, eastern and southern locations. Spatial distribution of previous values of competition variable indicates that the positive effects of previous values of competition on the current competition level are more dominant in the member countries located in northern and western locations compared to the eastern and southern locations. It means that northern and western countries have stronger competition power than eastern and southern countries and such a competitive advantage provides them to develop more easily. Considering that the most developed countries of Europe are located in the north and west of the continent, it can be emphasized that high competitive power is one of the main factors determining the speed of development. When combined with the results introduced in Table 2, development process can be accelerated with the help of finance and technology as well as foreign trade economic integration, globalization process and intellectual property rights.

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Table 2, where the results of GWR and OLS analysis are presented, indicate that all of the variables have statistical significance in GWR analysis, while OLS analysis cannot exhibit such a strong linkages. GWR analysis coefficients within 25-75% quartile intervals indicate that the variables have high level of statistical significance. From this aspect, when compared to OLS analysis, GWR analysis provides higher significance levels, and it proves the robustness of estimations. GWR analysis results, which satisfy the expectations in terms of coefficient signs, indicate that competition power might deepen in parallel with the increase in financial development and technological progress and it can be said that the process of technical progress combined with financial development can give more momentum to competition power. On the other hand, the findings of the analysis indicate that rising foreign trade, deeper economic integration and globalization process might trigger competition power. The results of the analysis indicating that foreign trade coupled with technical progress and the protection of intellectual property rights increase the competition power show that economic crises have negative effects on the level of competition. The analysis findings reflecting the need for greater emphasis on the financial development and technical progress in accelerating competition power show that an additional momentum can be added to the level of competition with the help of additional factors supporting this process. In general, it is possible to say that the evolutionary Schumpeterian revolution that attaches more emphasis on the development of technology and financial markets is valid.

SOLUTIONS AND RECOMMENDATIONS

It is identified that technology, innovation and financial development have an important contribution to gain competitive power for the EU member countries. In addition, it is also determined that foreign trade openness, level of economic integration, globalization process and the protection of intellectual property rights have a positive effect on increasing the competitiveness. Besides, in order to increase the competitive power within the union, harmonization of the monetary and fiscal policies are important, and this harmonization can protect the competitive power by reducing the risk of economic crisis. While considering these aspects, it is strongly recommended that the EU member countries should give importance to the technological investments and financial development process to gain more competitive power.

FUTURE RESEARCH DIRECTIONS

This study aims to analyze the effect of technology and financial development on competitiveness in the EU member countries applying GWR analysis. For this purpose, technology, financial development and competition power data set of 28 member countries for the periods between 2004 and 2016 is taken into the consideration. By focusing on important topic for increasing competition power, it is believed that this study makes a contribution to the literature in the context of macroeconomic base. On the other side, it is also thought that a new study, which considers some additional variables to the analysis, widens time period and more detailed econometric analysis, will also be beneficial. In addition to this situation, another study that covers more countries can also give appropriate results.

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CONCLUSION

The aim of the section is to examine the effect of technologic improvement and development of financial markets on competitive power in the 28 member countries of the European Union applying panel GWR analysis for the period of 2004-2016. The results of the analysis show that the positive effects of previous values of competition on the current competition level are more dominant in the member countries located in northern and western locations compared to the eastern and southern locations. It means that northern and western countries have stronger competition power than eastern and southern countries. Besides, the findings, which show that increasing technological development accelerates the competitive power, support the Schumpeterian hypothesis, revealing that the impact of technology on competitiveness could accelerate with the contribution of the financial sector. In addition, findings reflecting the fact that the foreign trade which has been strengthened via technical development increases the competitive power show that the level of globalization has a contribution to this process, also. Besides, it has been observed that securing the property rights and applying the effective patent regimes leads to competitive advantage, and the economic integration process of European continent has strengthen the competitive force. In addition, the results of the analysis report economic crises as the most important factor affecting the competitive power negatively. In general, the validity of Schumpeterian revolution in the axis of finance-technology-competition can be said.

Competition power is much higher in countries located in the north and west of the continent can be explained by the high entrepreneurial power of countries located in the region as well as the technical development capacities and the high stages of financial development process. This finding, in turn, explains some of the development differences across the continent. However, it is obvious that there is a need for a more advanced level of integration at the union so that competition power can be reflected in the whole of the continent. Otherwise, an unequal development process will be inevitable in the European Union, where developmental differences will manifest itself due to differences in competitiveness. In this context, policies that allow the revision of common competition policies and the spread of technical progress throughout the union can be useful for reversing the unequal development process. In addition, a high integration of the financial markets development should be ensured and the financial market depth leading to technical development should be provided. Competitive power should be accelerated with the help of integration depth of the union and accelerated with more openness in external trade. In this context, it is possible to say that the trade wars of today's world do not benefit any countries and territories. In addition, given that globalization is an irreversible process the importance of the globalization process that drives countries to create technological development and innovation should be taken into account and the protection of intellectual property rights is critical to gain competitive power. In addition, globalization process that drives countries compete with each other effectively by redirecting countries to more technical developments and innovations must take into account and the protection of intellectual property rights should be emphasized. In this context, it may be useful to extend the scope of Trade-Related Aspects of Intellectual Property Rights (TRIPs). Finally, in order to increase the competitive power within the union, harmonization of the monetary and fiscal policies are important, and this harmonization can protect the competitive power by reducing the risk of economic crisis.

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Chapter 23
Three Economic Depressions of the Turkish Economy:
A Structural Perspective for Development Strategy

Cengizhan Yıldırım
Bolu Abant İzzet Baysal University, Turkey

ABSTRACT

The aim of this chapter is to analyze the three depressions of Turkish economy, which are the period of Second World War, the second half of the 1970s, and between 1994 and 2001. In these depression periods, the supply-demand balance completely deteriorated, and the economy completely collapsed. The economic paradigm changed after each depression, but economic problems have never changed. As very different economical models, étatism, planning import substitution industrialization, neoliberal economy policies have been tested for Turkish economy, but none of them has been successful. The lack of knowledge of facts of economics is the main cause of depressions. For innovative strategy, the Turkish economy needs more free market and deregulation.

INTRODUCTION

Recession, crisis and depression have slightly different meanings from the perspective of economy. Recession is defined as an economic slowdown in macroeconomic indicators such as investment spending, capacity utilization, household income etc., but mostly GDP. It can also be defined as a failure in economic growth. A crisis, which has negative indicators for these macroeconomic indicators, may be accompanied by high inflation and high unemployment rate. Depression is not only deterioration in economic indicators but also a social despair, and certain deterioration of supply-demand balance. Expectations are totally low and yield no hope that it would improve. A crisis becomes a depression when it is misdiagnosed and continues for a long time.

Although the Turkish economy has gone through many economic recession and crises, three of them can be defined as depressions. The economic paradigm changed in the Turkish economy after

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each depression since the current situation became unsustainable. Although these three depressions occurred in different times and structures, they had common features such as étatism and non-free market economy policies.

The first depression in the Republican period occurred during the Second World War. During this depression, the supply-demand balance deteriorated so drastically that even bread was rationed and the poor began to starve. The Second World War was effective in this crisis because the recruitment of more than one million people created a labor force problem in agriculture sector which was the dominant one at that time. Even though Turkey declared to be unbiased at the beginning of the Second World War, the war conditions were a determinant of the depression because the recruitment of a large number of people created insufficient labor force problem in agriculture sector. In addition, the defense expenses increased dramatically. However, the main reason of the famine that occurred during the war was wrong non-free market economic interventions made by the state such as the National Defense Law, Wealth Tax, Decision of 25% and the Law Numbered 452, Agricultural Product Tax, and the Law on Provision of Land to Farmers.

The second economic depression occurred at the end of the 1970s. After the relatively free market economy in the period of 1950-1960, the étatist, import substitutional and planning-based economic policies were implemented during the 1960-80 period. For this purpose, the government started to prepare five-year development plans which were guiding for the private sector and ordering for the public sector. With these plans, the state was in the command room and it controlled the economic activities.

After the 1978-79 depression, new economy policies were introduced on 24th January 1980. These economy policies mostly consisted of neoliberal economy policies such as liberalization, free market, deregulation, privatization, fiscal discipline, and foreign direct investment. The transition to neoliberal economic policies implies a certain separation from the economy policies of the earlier periods. However, the implementation was not as fast as the declaration.

On one hand, foreign trade and financial movements were liberalized. On the other hand, structural issues such as budget discipline, inflation, and privatization were under construction for a long time. Thus, the Turkish economy tried to compete with the entire world with this cumbersome structure. Therefore, there were many economic crises in the 1990s, which we can call 'the crisis period'. Since the coalition governments managed the economy with daily politics and regardless of structural problems, the accumulated problems also caused another depression in 2001.

Transition to the Strong Economy Program started to be implemented after the 2001 depression under the consultancy of Kemal Derviş, who is World Bank's economist. Although the program consisted of neoliberal economic policies, it contained a definite political commitment since the opposite was not possible. Thus, unaccomplished structural reforms started to be applied. Transition to the Strong Economy Program contained regulation for five key areas: financial sector, transparency in public sector and budget discipline, competition and efficiency, and real economy. After the implementation of the program in the period of 2001-2008, Turkish economy acquired the public discipline, lowered the inflation to single digits, and was raised to middle-income countries level. Thanks to these structural reforms, Turkish economy was less affected by the 2008 Financial Crisis.

The aim of this paper is to analyze the common features of the three depressions in Turkish economy. With this aim, firstly, I explain the terms of recession, crisis and depression. Thereafter, I analyze these three depressions and their common features by focusing on the macroeconomic indicators of the depressions.

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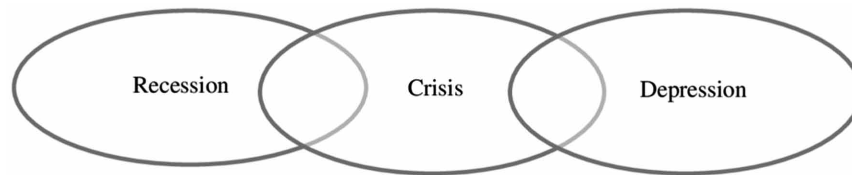
Figure 1. Recession, Crisis, and Depression



RECESSION, CRISIS, AND DEPRESSION

The terms recession, crisis, and depression are mostly used interchangeably in the literature. Very few studies have used the terms recession and crisis in different meanings. However, these three terms have different "contents" although they have a common ground.

Economic recession is the slowdown of economic activities in an economy or its acquisition of positive or negative values being close to zero. Economic recession can be directly associated with GDP as well as it can be understood from macroeconomic indicators such as unemployment, foreign trade, and inflation. Economic recession is a situation of "non-improvement" in "lack of economic growth" or in macroeconomic indicators.

Economic crisis is the downsizing in GDP; however, these downsizings are more than recession, and visible deteriorations occurring in other macroeconomic indicators such as inflation, unemployment, foreign trade, fixed capital investment, and wholesale and retail trades. Unemployment and/or inflation can rapidly increase, investments and total sales can decrease, and total demand can decrease. In the developed economies, dramatic decreases can be observed in the general level of prices because of the reduced demands. Economic crisis lasts longer than recession but shorter than depression. The environment of crisis cannot be overcome without carrying out active monetary and fiscal policies.

Depression is similar to crisis in terms of economics; however, negativity reveals itself in a more advanced level. Unemployment and inflation increase to higher levels; total demands and sales are almost at a standstill since expectations completely fail. The most important difference of depression compared to crisis is its duration and its reflections on social and political fields. Depression lasts longer than crisis. For example, the Crisis of 1929 turned into a "depression" in the period between 1930 and 33 because of false policies.

Since it lasts long, its most important quality of depression is social despair. People stop trying to find solutions to their situations and try to adapt current conditions that would not be changed; because they are in a big despair. Instead of looking for a job with regular income, they struggle to find ways to have something to eat.

Another important quality of economic depression is the persistence to carry out false economic policies. For this reason, macroeconomic indicators act in a completely opposite direction with the expectations. Although crisis is falsely diagnosed, populism or ideological obsession can also create it. Some examples of these are the fact that Fed decreased money supply in 1929 instead of increasing, and government interventions gradually increased in Turkey during the Second World War. Since the long duration of depression will cause the effects of new economic policies to occur late, political authority can turn towards one-day policies.

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Economies implement paradigm changes after every depression since the current paradigm is not enough to explain new conditions. For example, the Depression of 1929 created Keynes and Keynesian economics, and 1973 Oil Crisis created Friedman and Monetarism. Political structure may completely change after great depressions. For example, the parties of trilateral coalition causing 1993-2001 Depression in Turkey got significantly less votes in 2002, and AK Party, as a newly founded party, came into power by getting the high rate of votes.

YEARS OF THE SECOND WORLD WAR

The economic aim of the newly established country is industrialization. However, this aim has more advanced meaning compared to economic development. In this regard, it should not be considered only as the agrarian society's (80% of the GDP was based on agriculture in this period) transformation into an industrial society, it should be considered within the frame of "westernization" which is the main target of the founding staffs; because all of the Western countries that were taken as models are industrialized societies. From this perspective, industrialization was considered as a highly significant way to become westernized and to reach the level of contemporary civilization.

Throughout 1920s, industrialization was attempted to be achieved through private sector. However, with the lack of development, lack of sufficient capital in the hands of the private sector, lack of qualified employees, low number of entrepreneurial people, and the influence of the Great Depression of 1929, the étatist industrialization policy was carried out in the 1930s; and a large number of economic state organizations have been established in iron and steel industry, textile industry, chemical industry, mining industry, and the cellulose industry. Thanks to these organizations, a great majority of basic consumer goods began to be produced in the country in 1930s. Establishment of the Turkish Grain Board in 1938 is considered to be the beginning of agricultural support purchases and minimum prices. The étatism which started in this period has gradually increased its "violence" until the end of the Second World War.

National Defense Law

Due to the disagreements between Atatürk and İsmet İnönü, İnönü had to leave his position as Prime Minister in September, 1937. According to Koçak (1996a), along with many other reasons, one of the most important reasons of this disagreement is étatist-liberal economy policies. Atatürk supported liberal policies in economy more compared to İnönü. Immediately after the death of Atatürk, the étatist approach of İsmet İnönü surrounded the whole economic area as he became president on 11 November 1938.

Being the Minister of Economy in the period of İnönü's presidency, and then becoming Prime Minister by taking İnönü's place, Celal Bayar listed the topics they could not agree on as follows: "in particular, the state-individual relations in economic life, the boundaries of the state's guidance, the guarantee of the free enterprise, the extent to which the legitimate labor of the citizen's welfare limit can reach, the view that social rights are not exclusively limited to official services, the privilege of creative power to state justice and compassion" (Kutay, 1982, qtd. by Koçak, 1996a). Taking the place of Prime Minister, Celal Bayar, in January 1939, Refik Saydam stated in the first government program he read in the parliament on 27 January 1939 that he would remain loyal to the étatist principle (Sertel, 1987).

Despite the fact that the country did not participate in the Second World War, extreme étatist policies, the difficulty of providing some import goods, and the recruitment of more than 1 million people

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completely destroyed the supply side of the economy. The mobilization led to production bottlenecks, which caused difficulties in procuring basic consumer goods; prices began to rise rapidly from September 1939, and black marketeering became widespread (Metintaş & Kayıran, 2008). The National Defense Law (NDL) which was enacted to overcome these difficulties would be effective in the country's economy throughout the war and would form the legal basis for other practices.

NDL is a law which was established with law number 3780 on 18 January 1940 and it gave the government almost unlimited authority in the economy. In general or partial mobilization, in the possibility of participating in a war, and in situations where wars between foreign countries may affect Turkey, "with the aim of reinforcement of the state's system in terms of economy and national defense, the Cabinet Council *(İcra Vekilleri Heyeti)* has been given the duties and powers in the form and conditions shown in this law".[1] The law was declared as a state of emergency on 19th February of the same year due to the Second World War and continued its existence with various regulations until 1960.

Being a "well-thought" text since all areas the government can intervene and all forms of intervention can be seen in the text of the law, the NDL, provides the practitioner almost unlimited authority. Remarkable articles of the NDL are as follows: the government may control and direct industrial and mining companies and small-scale agricultural cooperatives in order to produce as much as they need (art. 7). "The Government has the authority to request production programs and other necessary information from industry and commodity associations and small arts cooperatives, or to directly give programs to these institutions and cooperatives in this way" (art. 8). "Citizens can be obliged to paid employment" (art. 9). "Workers, technicians, engineers, specialists and other services working at other work places to be designated by the government may not leave the premises or work places they work without an excuse" (art. 10). Government can purchase products from industry and mining entities by adding a certain profit rate to their costs (art. 11). "The Government is authorized to take all kinds of materials and auxiliary materials required by the people and the National Defense by taking possession of them in return for the payment of their value price [...]" (art. 14). The government can process mines itself (art. 16). "The Government can purchase machinery, tools, equipment and facilities, and any other means of production, which are not strictly necessary to the owners, at a cost of value to give the facilities they require, provided they do not dispose of their owners' business" (art. 17). "The government can confiscate and operate factories and mills, and other industrial and commercial establishments" (art. 18). "The Government is authorized to determine the days and minimum hours of operation of the public and commercial establishments. It is obligatory to keep these businesses and establishments open during the determined days and for the minimum working hours" (art. 19). "The Government can control, limit or prohibit commercial credits had by financial administrations" (art. 24). Engrossing is forbidden (art. 32).

In addition to all these, one of the most remarkable articles is the article 21: "When it is considered necessary, the Government may prohibit the purchase and sale of materials, and their manufacture, consumption, use, and transfer to another person under any circumstances. They can arrange and restrict or bind in what form, under what conditions, in what quantity these materials will be bought and sold, transferred, produced, claimed, used, and transported".

Changes occurred in NDL for three times in Refik Saydam's period, and once in his successor Şükrü Saraçoğlu's period. Especially with the changes implemented in Refik Saydam's period, the Law was aggravated. For example, confiscating of goods became easier (Koçak, 1996b).

Based on the NDL, the government carried out the first confiscation on 14 February 1941. With the decree issued, it became obligatory for the farmers to sell their cereals to the Turkish Grain Board at the determined prices, except for the subsistence, the feed and the parts reserved for the seed. The decree

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issued on 18 June of the same year increased the number of products to be confiscated, and the implementation area of decision-making was increased from 17 to 39 provinces. In 1942, this practice was valid for all provinces (Şener, 1980). Small and medium scaled producers were affected the most by this practice. Rich farmers, who were already in "good" relations with civil servants and gendarmes, missed crops from the state and made profit from this practice by selling this crop on the black market (Şener, 1980). At the same time, the police measures taken to enforce this law caused injustice (Öztürk, 2013).

In addition to these interventions in agricultural areas, with the NDL, persons working in agriculture were obliged to work in state owned or privately owned enterprises within 15 km of their place of residence, provided they did not disrupt their own work and pay their wages. Weekend holidays were canceled and the obligation to work overtime was introduced. Women and children were forced to work in heavy industries. The law was gradually expanded, and the obligation to work in bridges and mines was implemented (Dokuyan, 2013).

Wealth Tax

Wealth Tax was enacted on 11 November 1942 by Law No. 4305. The "official" purposes of the law are to tax the property owned by the rich by benefiting from the difficult conditions during the war and to finance the extraordinary expenditures of the state, to end stockpiling[2], and to fight against inflation (Koçak, 1996b). However, the real purpose of this tax is stated by the Prime Minister Şükrü Saraçoğlu at the CHP group meeting closed to the press as follows: "This law is a revolution law at the same time. We are facing an opportunity to gain our economic independence. By eliminating foreigners that dominate our market, we will give the Turkish market to the hands of the Turks" (Qtd. in: Barutçu, 1977).

The president of the period, İsmet İnönü, had previously emphasized the anti-free market and statehood. His speech at the opening of the Assembly on November 1, 1942, just before the Wealth Tax was released, clearly shows his harsh attitude on economic issues (Qtd. in: Kocabaş, 2009):

The old knocker farm owner who considers hard times as opportunities, the rapacious profiteer merchant who will want to turn the air we breathe into product if he can, and some politicians who take all troubles as opportunities for their political aims and work for some foreign nations that we cannot even guess try to put a great obstacle on the road of a glorious nation. There is, of course, a way to overcome the obvious damages given by these people whose number does not exceed three or five people. […] We must not give any right to these people who want to rob the nation by an excuse of the freedom of trade and economic activities.

The following section of the Law of Wealth Tax is remarkable:

In accordance with the provisions of the related law, an exceptional obligation is established on the assets of income and asset owners, and on exceptional earnings for one time only. We aim to tax income owners, particularly the ones who took advantage of the difficulties arising from the narrow economic conditions, and the ones who do not pay enough tax on their earnings even though they have gained high returns; and it aims to make them contribute to the sacrifice of the extraordinary situation we are in. (Çavdar, 2003)

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It was also stated in the law that commission decisions that determine tax amounts are final decisions and that lawsuits cannot be brought against them. Taxpayers had to pay the tax amounts within 15 days from the date announced. Those who did not pay their tax debts during this period had to pay 1% interest for the first week after the end of this date and 2% interest for the second week. During this period, those who did not pay the debts would be subject to the obligation to work and be deducted from the debts of half the fees they received. The procedures and properties of the husband and wife, together with these, were covered by the guarantee of this tax (İnci, 2012).

In spite of the fact that the notion of "Non-Muslim" or "minority" in the text of the law has never been mentioned, non-Muslims have been taxed much more than Muslims-Turks because the tax base and taxation were carried out by arbitrary decisions. According to the orders received from Ankara with the statement of Istanbul bookkeeper Ökten (1951), the taxpayers were separated into Muslims (M), Non-Muslims (G), Apostasy (D), and Foreigners (E). In addition, favoritism was observed when the tax was applied. The tax of a large grocery store was halved, the tax of a person known to be close to the Minister of Finance of the period was kept very low, a Muslim lawyer winning the cases against the state was forced to pay the tax of 100 thousand liras as 200 thousand liras and then as 300 thousand liras, or the punishment of a person suspected to support Armenian nation was increased to 400 thousand liras; these are among examples that demonstrate arbitrary decisions (İnci, 2012).

The Wealth Tax, issued by the government in order to bring a lasting solution to the financial difficulties in the war years and to improve the distribution of income and wealth, has left many local non-Muslim traders and industrialists in a difficult situation. While some of the assets of minorities are transferred to the state for tax purposes, a significant part of them have been conquered by the rich Muslim-Turks because the minorities sold the real estate, factories and commercial stocks they had to sell in panic. Thus, there has been a significant change in the ethnic structure of trade and industry in Istanbul (Tezel, 2002).

This brought criticism not only from within the country but also from outside the country. The New York Times journalist Cyrus Sulzberger who visited Turkey in summer has released a series of articles in the newspaper about this tax lasting from 9 to 13 September. He stated in these articles that minorities who hold an important place in the commercial life in Turkey were attempted to be erased from the market. Thus, in the Allied Press, which was almost certain to win the Second World War, the Wealth Tax was criticized for the first time (Aktar, 2012).

As a result of the criticism, the Wealth Tax was abolished on 17 March 1944 after being in force for 16 months, and the debts of all tax payers were abolished, it was recorded as a black spot in the history of Turkish Republic. The confiscation of the assets of non-Muslims under the name of Wealth Tax has caused foreign investors to hesitate to invest in Turkey for many years. It is the only practice in the world that people who do not pay their taxes are physically employed (Öztürk, 2013).

Agricultural Product Tax

After Aşar tax was abolished in 1925, as the first direct tax collected from villagers Agricultural Product Tax (APT) was enacted on June 4, 1943 with the Law No. 4429 with the aim of taxation of various products produced in Turkey. The fiscal objective of the tax is to contribute to the budget deficit, which was rapidly increasing with defense expenses during the Second World War. The social aim is to tax the peasant population in order to alleviate the reactions after the Wealth Tax.

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The difference between the other implementations, which govern the confiscation of certain percentages of cereal products by the government in return for their price, is that the tax is started to be taken from cereals and many crops (Akman & Solak Akman, 2011). Tax covers almost all manufactured products in Turkey.[3] Real collected taxes were determined to be 8%, and cash collected taxes were determined to be 12%. It is a tax collected from some products as well as a tax collected more in kind. As discussed in the legislative bill, this tax is similar to the Aşar Tax in many respects.

Several problems have arisen during the application of the tax. The most important of these problems is the arbitrary application of the officers during the application. Approximately 100,000 new employees were employed for the assessment, accrual and collection of this tax. These officers were not given enough training because the tax was applied in a hurry (Özer, 2011). In addition, during the collection of taxes, the officers acted arbitrarily in a manner similar to the commissions in Wealth Tax. Sometimes they showed less tax by taking bribes, and sometimes they showed more tax base than crop. In this case, the peasant had to put his animals and fields on sale in order to pay his tax (Özer, 2011).

When so many employees were employed, the costs during the collection of the tax were also high. Only half of the expected income could be collected, and 1/3 of it was spent for the expense. With this new law entering into force on April 27, 1944, it started to be collected by estimation, not by the method of measuring in-place tax. The cost, being 20.7 million liras in 1943, was reduced to 11.2 billion in 1944 and 7 million in 1945 (Özer, 2011). Another arrangement was that the village warehouses where the crop was collected had been removed and the crop was delivered directly to the collection warehouses shown by the government (Çomaklı, Koç, & Yıldırım, 2012). However, these changes have only caused the situation of the poor peasantry who struggle to earn their own livelihood to worsen.

The rate of APT has been changed to 10% by Law No. 4553 dated 28 April 1944. Meaning getting more taxes from the poor villagers, this increase has also been discussed in the Parliament. While discussing this issue, Emin Sazak's speech to the parliament also reveals the pitiful state of the villages: "I can see that people who sow grain – and most of the farmers are – are the ones who have no clothes to wear, no shoes to wear, no blanket to be covered, no pillow to sleep on; and these are the people who are subjected to this tax" (Qtd. in: Özer, 2011). However, this one and similar speeches could not prevent the increase of the amount of taxes.

The facts that there were not enough silos during the collection of the taxes, products were rotten before they reached to their destination, and the attempt to collect more taxes made the situation even worse for the villagers who were already in bad conditions. The villagers had to harvest the crop before it grew. There were even people who ate grass and died of starvation (Özer, 2011; Giritlioğlu, 1965).

APT was abolished by the Law No. 6216 on January 23, 1946; yet, since the remaining debts were not erased, the villagers continued to be in trouble. As a result of the report indicating that the villagers were very poor and unable to pay this tax, and that the efforts made on this occasion would be wasted and therefore, debts should be deleted, these debts was also forgiven by the Law No. 550 of 21 May 1947 (İnci, 2009).

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1978-79 DEPRESSION

After the period with relatively liberal perspective between 1950 and 1960, economic policies implemented in Turkey in the period between 1960 and 80 and the crisis experienced at the end of this period can be explained in three terms: import substitution economic policy, economic planning, and economic étatism. Combination of these three terms opens wide space to the state interventionism.

Preservation of import practiced in the short term when import substitute economic policies are applied will cause an industry structure that prevents development if it is not removed or ameliorated in time. With the economic growth in the first phase (in the meantime, the substitution of consumer goods must be realized) in the long run, more foreign exchange will be required depending on imports of intermediary and investment goods, and if the export increase does not occur in certain sectors, the economy may enter into foreign exchange bottleneck. It is the structural transformation of the economy in the long run while the target income increase in the short run (Ertüzün, 1976). Sectors that produce consumer goods, if protected for a long time, may prevent economic development instead. Such an economy may create problems such as lack of economic activity and poor resource use by causing increase in costs (inflation) and saving gap (Ertüzün, 1976). In the 1970s, critics of import-substitutional economic policies saw this situation and pointed out that governments would resort to expanding monetary and fiscal policies, thus destabilizing the economy, in order to overcome the problem of low growth with foreign exchange scarcity (Türel, 2010).

During the period of 1962-76, Turkish economy achieved annually 5.52% growth rate in average; but structural transformation is not as successful as growth. During the period, the fact that the shares of the industry and service sectors within the GNP changed against the agricultural sector is a positive situation; however, this change is under the expected development. Moreover, as an indicator of productivity

Table 1. Some Economic Indicators in the Period of 1973-80

	1973	1974	1975	1976	1977	1978	1979	1980
GDP (bn TL, constant 2010 TL)	23,91	25,24	27,06	29,89	30,90	31,37	31,17	30,41
Growth rate (%)	3,3	5,6	7,2	10,5	3,4	1,5	-0,6	-2,4
Inflation	20	30	10	16	24	53	64	107
Export (million $)	1.317	1.532	1.401	1.960	1.753	2.288	2.261	2.910
Import (million $)	2.086	3.778	4.502	4.872	5.506	4.369	4.815	7.513
Export/Import	63,1	40,6	31,1	40,2	31,8	52,4	47,0	38,7
Oil and oil products import (million $)	221	763	812	1.125	1.367	1.438	1.759	2.100
Workers remittance	1.183	1.425	1.312	982	930	983	1.694	2.071
PSBR/GDP (%)			3,6	5,1	6,1	2,4	5,4	6,6
Central Bank Advances to SEE (bn TL, current)	4,12	8,77	20,5	40,1	66,3	85,6		
Central Bank Advances (bn TL, current)	27,87	45,82	66,2	111,6	189,7	241,9		
Source: Ministry of Development, Economic and Social Indicators								
Employee Currencies: Artukoğlu, 2005.								
Central Bank Loans: Kepenek, 2012.								
Fuel Import: Şahin, 2016.								

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throughout the period, the relative added value per worker has constantly declined. In 1962 and 1977, it decreased from 0,54 to 0,46 in the agriculture sector; from 2,06 to 1,74 in the industrial sector; and from 2,83 to 2,02 in the construction and services sector respectively (DPT, 1984).

The beginning of the crisis goes back to 1973 when the Oil Crisis. After this year, the rapid increase in import coverage ratio of exports to imports of Turkey fell rapidly. An important reason for the postponement of the crisis until 1977 is the workers' foreign exchange. In the years of 1973-1980, exports averaged 1.93 billion dollars, while workers' remittances were 1.32 billion dollars. However, in the same period imports averaged $ 4.7 billion. In the First and Second Turkish Development Plans, durable/non-durable goods were realized in import substitution. It began importing intermediate and investment goods which started after this phase and caused more foreign exchange needs (Şahin, 2016). However, since the economy did not have a competitive structure, it became a big foreign exchange bottleneck at the end of the period. In other words, import substitution economic policy itself was a reason of crisis in Turkey. With the expression of Milor (1990), state interventionism was initially designed to increase monopoly, not to increase competitiveness.

There are also external factors causing depression such as the Cyprus Peace Operation and the Oil Crisis. The oil price, which was 3.5 dollars per barrel in 1973, increased to $ 33 dollars in 1980 by creating a negative effect in Turkey's foreign trade deficit. In 1973, imports of petroleum and petroleum products, which were $22 million, reached $2.1 billion in 1980. Moreover, the increase in oil prices has not been reflected in domestic oil and energy prices in a timely and reasonable manner since this area is a state market, not a price-determining free market (Türel, 2010). Cyprus Peace Operation caused the US embargo, an increase in defense spending, and the slowdown of foreign capital inflows (Şahin, 2016).

Since the beginning of the 1970s, Turkey has met with inflation that later become a chronic problem. The rise in price instability in the second half of the period is due to a rise in the costs of production while the other major reason is that governments appealed to central bank resources. Loans of the central bank were divided into three groups as being short-term advance loan to the treasury, loans to Tekel, and State Economic Enterprises (SEEs). These loans, more than half of it was provided to SEEs, increased exponentially after 1973 (Kepenek, 2012).

Another situation that has changed since 1973 is the public budget balance. At the beginning of the period, a tax reform which was to be done by the taxation of the agricultural sector came to the agenda but was not implemented during the period due to the preferences of the politicians (Milor, 1990). Public deficits, which were 1,7 and 25,6 billion TL in the period of 1963-1967 and 1968-1972 respectively, increased to 86.7 billion TL in 1973-1977 period and then decreased to 57 billion TL in 1978 (Şahin, 2016). In these deficits, the financing of the SEEs occupied an important place.

Since the mid-1970s, Turkish economy faced three problems which are foreign trade deficit, budget deficit and the savings deficit. However, the intention of planning was to overcome these problems. Problems could not be solved and Turkish economy faced debt and foreign exchange bottleneck. The external debt, which was 1.9 billion dollars in 1970, increased to 4.4 billion dollars in 1979 and 11.6 billion dollars in short-term (Şahin, 2016). Considering the economic magnitudes of that time, these figures are quite high. According to Türel (2010), it was not a problem that a single creditor and a group of creditors could overcome. A well-coordinated international operation was required.

The major source of foreign exchange is export although there are other important sources of foreign exchange in a country such as borrowing and foreign capital. If the export figures are too far behind the import figures, then the economy enters the foreign exchange bottleneck. The foreign exchange bottleneck

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means that the country's imports, import production, and then export production stop. Such an economy enters a vicious circle and experiences a severe foreign exchange crisis.

This is exemplified by the petroleum sector, which is used as input in many sectors, especially in transport. The inability to import oil leads to a halt in production in many sectors. After 1973, the import of petroleum and petroleum products has rapidly increased in Turkey. In the period of 1977-80, the export of oil import rate was respectively 78%, 63%, 78%, and 72%. Thus, there were long queues for gasoline, diesel and gas tubes; and the production of various products almost stopped.

In the end of the 1970s, as a requirement of the étatist understanding, there were public interventions in product prices. When the quantity of goods and services in the period was considered, prices were determined by the central authority and very little space was left on the free market. These interventions took place in six forms:[4]

1. The price of agricultural products was largely determined by the state through support purchases.
2. The prices of the goods, in which the public sector was the only producer or seller, were determined by the public authority. Petroleum products and electrical energy are the most obvious examples of this.
3. Prices of goods of which production (for example, iron-steel) or import was largely dependent on the public sector were determined by the public sector.
4. The price of industrial products was determined by the Ministry responsible for the economy.
5. Local governments had the authority to set prices, as in the case of special transport and bread prices in the city. This application is still ongoing.
6. In addition to a tight Foreign Exchange Policy, the interest rates and exchange rates were fully determined by the state.

The rationality behind price interventions is that a good is produced or imported at a low price and sold at a high price; that is, to prevent excessive profits. Thus, the producer or importer wanted to be trained by the state; but these measures often distorted the supply-demand balance of the economy and made scarcity and black market a part of everyday life (Türel, 2010). When prices are determined by the central authority on such a large area, the economy has been accelerated to enter the foreign exchange bottleneck due to both bulkiness and populism. But the free market itself could solve these problems in a much more effective way.

In 1973-80, Turkey experienced a political crisis as well as economic problems. During this period, 4 prime ministers and 8 different governments, all of which were coalition governments, were seen.[5] Such frequent changes in power and weak governments led one-day policies rather than finding structural solutions to the severe problems of the period.

In order to escape the economic crisis, the Demirel government in 1977 went beyond the possibility of compensatory financing with the IMF and wanted to sign a stand-by agreement that would last 2-3 years (Türel, 2010). Ecevit, who replaced the Demirel government, prepared two similar stability programs in March-1978 and April-1979, which were the precursors of the 24 January decisions in order to get out of the depression. The balance of payments problem, budget deficits, financial structure of SEEs, and inflation problems are emphasized in both programs which are not implemented effectively and cannot be experienced (Şahin, 2016).

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2000-2001 DEPRESSION

By the year 1980, Turkey was experiencing both political and economic crisis; and there was mutual causality between these political and economic crises. The country was experiencing a heavy foreign exchange crisis, and there were queues even when the most basic needs were met. A radical departure from the étatist economic policies, which were applied during the 1960-80 period, was observed. Import substitution policies were supposed to be replaced by export incentives, and planning was to be replaced by free market place.

January 24th decisions on economics are a symbol of the transition to neoliberal economic policies in Turkey. First generation neoliberal economic policies[6] consist of 10 articles (Williamson, 2004-2005; Qtd. by Yıldırım, 2011):

1. Fiscal discipline should be ensured, and balanced budget understanding should be encouraged.
2. Priority areas of public expenditure should be re-established.
3. Tax reform should be made. Countries should give up rising taxes and expand the tax base.
4. All financial transactions must be free, and interest rates should be determined by the market. Thus, developing countries will have the capital they need.
5. Monotype and the exchange rate concept determined by the market should be applied.
6. Customs tariffs should be abolished and free foreign trade should be applied.
7. Foreign direct investments should be encouraged.
8. SEEs must be customized.
9. Deregulation, that is, the abolition of state control on the market, should be the main goal.
10. Property rights must be secured intact.

With January 24th decisions, Turkish economy that was managed by étatist tradition throughout the history of the republic, for the first time, preferred an economy model which was based on free market with the contribution of international paradigm. Considering two depressions experienced until 1980, it can be said that these measures are appropriate for Turkish economy. However, if it is thought that the same economic problems in 1980 (current account problem, budget deficit, inflation, saving openness, etc.) continued in the crisis of 2001, it is understood that neoliberal economic policies are not applied with full meaning.

Liberalization of goods, services and capital flows in Turkey has become easier and faster. Controls on interest rates were abolished in 1981, foreign trade was liberalized in 1984, the ISE was established in 1986, TL gained full convertibility in 1989, and Turkey was included in Customs Union in 1996 (Arın, 2007). On the other hand, as more important parts of neoliberal economic policies, deregulations and customization have been the topics which have gone on until recently. As a part of historical tradition, étatism in Turkey considers the state and institutions sacred instead of being an economic policy (Shaker, 1995). The state's property has been assessed as an unsalable status. Thus, while Turkey was implementing a "modern" economic policy by liberalizing goods, services, and capital flow, the state's decisiveness in the economy has still continued. Thus, the free market and the étatist economy coexist, and it has been distortedly applied.

Despite the fact that privatization in Turkey was introduced in 1980, it was possible to privatize $ 8,24 billion until 2003. There are two reasons of it: first, the judiciary has been an obstacle for privatization with subjective decisions. The Constitutional Court decisions can be shown as an example to

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Table 2. Some Economic Indicators in 1994-2001 Period

	1994	1995	1996	1997	1998	1999	2000	2001
GDP (current bn US$)	177	225,9	243,4	253,7	271	247,5	265,4	196,7
Growth rate (%)	-5,5	7,2	7	7,5	3,1	-3,4	6,8	-5,7
Inflation	106,3	88,1	80,3	85,7	84,6	64,9	54,9	54,4
Export (bn $)	18,1	21,6	23,2	26,3	27	26,6	27,8	31,3
Import (bn $)	23,3	35,7	43,6	48,6	45,9	40,7	54,5	41,4
Export/Import	77,8	60,6	53,2	54,1	58,7	65,4	51	75,7
PSBR/GDP (%)	7,9	5,4	8,7	7,7	9,4	15,6	11,9	16,5
Internal Debt (bn TL)	0,80	1,36	3,15	6,28	11,61	22,9	36,4	122,2
Gross Foreign Debt (bn $)	68,7	75,9	79,3	84,4	96,4	103,1	118,6	113,6
TL Deposits interest rate	95,56	92,32	93,77	96,56	95,5	46,73	45,64	63,9
Interest payment/GDP	7,67	7,33	10	7,75	11,54	13,69	16,27	23,27
Central Bank Advances (million TL, current)	160,5	206,1	380,9	346,9	9,1	10,6	501,7	766,3

Source: Ministry of Development, Economic and Social Indicators.
Internal Debt: Şen et al., 2007.
Interest Payment/GDP: Çakmak, 2007.

this. The Court stipulates that privatization in the light of Article 47 of the Constitution is contrary to statehood[7] and canceled the no. 233 "Decree Law on Public Economic Enterprises" dated 8 June 1984 (Savaş, 1998). The part on constitutional privatization was added in 1999. Second reason is that although political powers seem to support privatization, they have not actually been party to privatization in the direction of populist politics, or they have remained silent for judicial decisions preventing privatization (Cooper, 2002).

Turkish economy experienced a recession with low growth rates in 1988, 1989 and 1991, and a crisis in 1994 when necessary measures were not taken in the economy. In the second half of 1993, the government wanted to cancel both foreign exchange and public security tenders, and to control interest rates by covering the necessary financing needs from central bank resources. Thus, with the increase of money demand and the desire of commercial banks to close their open positions, the demand for foreign currency increased; and both exchange rate and interests have been out of control (Sönmez, 2009).

In early 1994, stability measures, known as April 5 decisions, were taken when the government did not stabilize the economy such as devaluation, raising interest rates by public banks and removing 5% withholding tax from Treasury bills and repo. With the April 5th Decisions, it was aimed to establish public income-expenditure balance, to privatize SEEs, to increase income through tax reform, to collect social security institutions under one roof, to rationalize agricultural support, to prevent excessive employment in the public sector and to strengthen local governments (Şahin, 2016). However, none of these measures is applied as shown in the table; during the period 1994-2001, Turkish economy is constantly in a crisis. Although the economy grew by about 7% in the years 1995-97 and 2000, economic growth has not been sustained unless structural problems (inflation, foreign trade, budget deficits, privatization) have been resolved. It can be seen that the growth in the economy may be misleading when the increase in domestic and foreign debt are considered. The frequency and severity of crises has gradually risen.

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In the 1990s, domestic and foreign debts increased rapidly due to private sector saving deficit, public budget deficit and foreign trade deficit. In particular, the high level of the PPE caused interest rates to rise and exclusion effects. Even the real sector has turned to interest income in addition to its main function. The ratio of income generated by the 500 largest industrial firms in Turkey, such as bonds, bills, repo and foreign exchange, to the net pre-tax balance sheet, reached 87% in 1998 and 219% in 1999, while it was 15.2% in 1982 (Sönmez, 2009).

Due to the aggravated crisis, the government signed a close-by agreement with the IMF in the middle of 1998 and a stand-by agreement under the name of the Inflation Control Program (EMP) in December, 1999 (Şahin, 2016).

As its name implies, the main objective of the EMP was to fight against inflation. Not only in Turkey in the 1990s, was inflation also seen as the cause of crisis in many developing countries experiencing a crisis. In addition to this, GDP growth, reduction of foreign trade deficit to sustainable level and reduction of public debt stock / GDP ratio were targeted in the program (Şahin, 2016). However, since inflation and the PSBR did not reduce, the central bank increased loans, and export's rate to meet import has fell to 50%, fragility in the Turkish economy has increased; and in November, 2000 liquidity problem was experienced. Although this was attempted to be overcome by the IMF's $7.5 billion additional reserve facility, four months later the economy was dragged into a severe crisis.

As stated in the studies analyzing the cause of the depression in the 1990s (For example; Cizre & Yeldan, 2005; Boratav, Türel, & Yeldan, 1996; Öniş & Aysan, 2000) 1990'lı), freedom in financial markets and neoliberal economic policies provided in 1989 are not "only" reasons. On the contrary, the main reason for this depression is the ignorance of étatism and free market mechanism. Moreover, the IMF and the World Bank have demanded regulation, not deregulation, for the financial markets. Similar crises were experienced also in 1958 and 1978/1979 before financial freedom.

21 years after the implementation of neoliberal economic policies, even in 2001, the price of products such as iron, steel, sugar, cigarettes, alcohol, electricity was determined by the government. The authority of the state in the economy continued in many fields such as cement, iron and steel, chemical industry based on agricultural products, distribution of petroleum products, tourism, textile, maritime transport, banking, communication, product and alcohol production (Asutay, 2006).

One of the symbolic events of the 2001 crisis was that an artisan was throwing a cash register at Bülent Ecevit, saying "Dear prime minister, take it, I am a tradesman." Retail sales fell dramatically as liquidity was tight during the crisis. The overnight interest rates among the banks exceeded 6,000%. For the first time in the history of the Republic, tradesmen have been turned into streets. The constant crisis since 1994 has led people to a deep despair.

Similar to the 1973-80 period, the coalition governments in the 1990s marked the year. During the period of 1991-2002, four prime ministers and nine governments were seen.[8] Especially after Özal's death in 1993, the political crisis deepened. Political parties within the coalition governments have been populist to come to power alone in the next elections.

After the 2001 crisis, the transition to a strong economy program (GEGP) was prepared by Kemal Derviş to stabilize the Turkish economy. With this program, measures have been restructured in the financial sector, ensuring public balance, financing and transparency, arrangements have been made to increase competition and efficiency in the economy, social solidarity has been taken into consideration and measures have been taken for the real economy. Considering that the Turkish economy is a stability program dump, the GEGP has been attached to a certain restructuring program to gain the necessary confidence; it has been stated that it has taken a certain political commitment and it is said that it is no

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longer possible to return to the Old State. In the program, it is stressed that non-rational public interventions should be prevented in a way that is not irreversible (GEGP, 2001). These highlights reveal that there are still non-rational public interventions on the basis of the problems of the Turkish economy.

SOLUTIONS AND RECOMMENDATIONS

One of the main issues of the Turkish economy is over regulations and non-free market implementations. Economically, the last word belongs to free market. States can influence the supply or demand of a commodity through economy policies; however it cannot increase suddenly a scarce commodity. The price is determined by the shortage or the abundance of a commodity not by states. For innovative strategy, Turkish economy needs much more free market.

FUTURE RESEARCH DIRECTIONS

First of all, the terms of recession, crisis, and depression need more explanation and story from the other similar countries. Thereafter, the legislation guiding the étatist economy should be analyzed in depth. This legislation reserves many interesting stories for defining prices by state.

CONCLUSION

The concepts of recession, crisis and depression include different meanings. If an analogy is established with diseases, the recession can be likened to the flu, crisis can be likened to a heart attack, and depression can be likened to cancer. The crisis becomes depression if the necessary lessons are not taken from the crisis and arrangements are not made. Depression is not only an economic problem, it also has sociological consequences, and it stays in minds for a long time.

When I talk about Economic Policy, I ask students of economics the following question in the first lesson: "What are the effects of the reduction of the weight price of tomatoes, which is currently 3 TL, to 1 TL by the state decree, in terms of producer and consumer?" All students say that it will be against the producer but for the benefit of consumer. However, it is against both. Since the maximum price will remain below the cost price, the producer will not continue to produce and the consumer will have to buy tomatoes at a much higher price than before, even the tomato will go on the black market. Tomato is not an essential product; however, wheat was essential during the Second World War. It has a very important place for the self-consumer farmers who obtained his flour, bulgur, straw, and ingredient of soup from wheat. Maximum price practice always consists of dangerous consequences. Instead of this, there are some other economic practices such as encouragement: however, the price is ultimately decided by the free market. Although this situation is suppressed for a temporary period, it goes back to its essence in long term. Although it is not as certain as the laws of science, the economics has its own "style of process".

Practices such as National Defense Law, Wealth Tax, Import Substitution Economics Policies, and economic étatism are policies also seen in other countries. Again, in many Western European countries, bread was distributed with a ration card during the Second World War.

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After 1973, economic management should have focused on stability, not growth, as done in many countries around the world. Instead of a closed and étatist model, an economic growth model based on comparative advantage and based on exports should have been developed. In the same way, the management of economy should have focused on stability and structural transformation after 1994. However, the étatist mind-set has prevented it; and, the determinism of the state in the economy has continued even during the neoliberal period.

After the depression experienced during the Second World War, Turkey established its development strategy by taking sides with Western countries. Turkey had been gradually incorporated into the global world. After the depression of 1978-79, economy opened to foreign countries and a strategy based on open market was followed. Turkey became a part of customs union with EU in 1995. After the depression in 2001, the economy of Turkey has been restructured in order to compete with the global world.

One of the main problems of Turkish economy is that it cannot compete with global world since it cannot make enough innovation. This is why it exports low-tech and mid-tech products and imports high-tech products. Thereby, the economy has been chronically faced with external deficit and external debt. Increasing Turkish economy's ability of innovation shall increase its competitive capacity.

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KEY TERMS AND DEFINITIONS

Crisis: It is deterioration in macroeconomic indicators for approximately a year.

Depression: It is significant deterioration in macroeconomic indicators and social despair for a long time.

Economic Étatism: Economic *étatism* is a kind of economy policy in which the state gives direction to the economy, and significantly determines supply and demand decisions in the economy.

NDL: National Defence Law is a law which gives broad authority to the state in Turkish economy during the Second World War.

Recession: Recession is an economic stagnation which failure of economic growth.

ENDNOTES

1. Law, National Defense Law, 26.1.1940, Array: 3, V. 21, P. 274.
2. Stockbrokers are thought to have to sell their goods to pay the tax.
3. APT was taken from silk cock and the following three groups (Çomaklı et al., 2012): i) Grain; barley, wheat, rye, paddy, sand millet, hot spring, incense, maize, oat; ii) Legumes; beans, peas, cowpea, beans, lentils, chickpeas; iii) Other crops: opium (gum), pistachios, sunflower, nuts, hemp (seed), linen, dried figs, raisins, citrus fruits, cotton, beets, potatoes, sesame, tobacco, olives.
4. First 5 articles were taken from Türel (2010), and the 6th article was added by me.
5. 40th Government led by Bülent Ecevit lasted only 1 month.
6. After criticisms in the 1990s, 10 more articles were added to these policies and the second generation was called neoliberal policies. This topic has not been dealt with since it is outside the topic of this article.
7. Expropriation is the transfer of a private property to the state in exchange for the cost. Because it is open to abuse, it is appropriate to act with law; however, privatization is a free market transaction.
8. Among these, the 51st government led by the presidency of Tansu Çiller lasted only 25 days.

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Chapter 24
The Role of Islamic Financial Product Innovation in Reduction of Financial Exclusion in Ethiopia

Suadiq Mehammed Hailu
Cukurova University, Turkey

Ayhan Kapusuzoglu
Ankara Yildirim Beyazit University, Turkey

Nildag Basak Ceylan
Ankara Yildirim Beyazit University, Turkey

ABSTRACT

The aim of the chapter is to explain the strategic role of Islamic finance, which can be considered as financial product innovation, in combating financial exclusion in Ethiopia. It intends to assess the extent and the nature of religious-driven financial exclusion of Ethiopian Muslims and the level of their participation in the existing interest free window banking system introduced to the sector recently. In order to collect data for the research, mixed approaches such as questionnaires and semi-structured interviews are used. The questionnaire was distributed to 321 respondents in Addis Ababa in 2017 while the semi-structured interview was conducted with selected high-ranking bank officers. At the end of the analyses there are findings which show the extent of financial exclusion of Ethiopian Muslims due to the absence of alternative financial systems.

INTRODUCTION

The concept of Financial Exclusion has been gaining attention in developed countries from 1990s (Warsame, 2009). Different scholars define financial exclusion based on different contexts. Anderloni et al. (2008) defines financial exclusion depending on difficulties to access finance. According to them,

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"Financial exclusion refers to a process whereby people encounter difficulties accessing and/or using financial products and services in the mainstream market that are appropriate to their needs and enable them to lead a normal social life in the society in which they belong". In addition to this, Leyshon and Thrift, (1995) also defined financial exclusion as a process of excluding poor's and disadvantage groups because of fearing risks. Further, Australia and New Zealand Banking Group (2004) stated that, financial exclusion is the absence of access to financial products and services by single person or societies due to their geographical location. According to Connolly et al., (2011) "Financial exclusion exists where individuals lack access to appropriate and affordable financial services and products – the key services and products are a transaction account, general insurance and a moderate amount of credit".

According to Global Findex database 2014, 2 billion adults are financially excluded and 350 million or 17% of them are from Sub-Saharan Africa countries (Demirgüç-Kunt, Klapper, Singer, & Van Oudheusden, 2015). In 2013, the World Bank group president Jim Young Kim announced Universal Financial Access (UFA) vision. This vision has given priority for 25 countries where 73% of their population are not accessing finance or financially excluded. Ethiopia is one of the countries included in UFA2020 (World Bank, 2016).

According to The World Factbook, in 2017, Ethiopian total population is estimated as 100.2 million, of which 35% to 40% are Muslims. Ethiopia is the third in Africa and tenth in the world by numbers of Muslim population with more than 34 million Muslims. In Ethiopia, there are 19 banks (three of them are state owned), 17 insurance companies and 35 microfinance institutions.

Global financial inclusion (Global Findex, 2014) database drawn a survey from 150.000 people around the world in 140 countries. Ethiopia is one of the countries included in this survey. The survey is given to 1004 Ethiopians as a sample size. In the report, 78% of adults had no account in formal financial institutions, 86% of adults were not having formal saving, and 93% of adults had not taken formal borrowing. This shows that majority of the Ethiopian people are excluded from the formal financial institutions. In addition, the performance of financial inclusion is lower than the Sub-Sharan countries average (Demirgüç-Kunt, Klapper, Singer, & Van Oudheusden, 2015). However, in rural areas, the rate of access to finance is 1% and there is no financial institution that offers Islamic finance for substantial number of the Muslim population who need sharia compliant finance (Byrne & Anderson, 2015). Because of the low level of access to finance in Ethiopia and the unavailability of full-fledged interest free finance, Muslims are the double victim of financial exclusion.

Even though the cause of financial exclusion is different from country to country, lack of finance, farness of financial institution, lack of trust in financial institution and religious reasons are the most common hindering factors in accessing financial services (Demirgüç-Kunt, Klapper, Singer, & Van Oudheusden, 2015).

Religious factor is one of the common reasons for financial exclusion of Muslims across the world (Ben, Barajas & Massara, 2015; World Bank, 2014). In terms of population, the numbers of Ethiopian Muslims are more than the population of many Muslim countries such as Malaysia and Saudi Arabia, which are bolstering in Islamic finance industry. However, there is no full-fledge interest free finance in Ethiopia. Ethiopian Muslims have requested from the government for opening Islamic finance for many years. Taking the long request in to account, the National Bank of Ethiopia (NBE) issued a Proclamation No: 592/2008 that allows interest free finance in 2008. Article 22, Sub-article 2 of the proclamation states that "The National Bank may issue directive to regulate banking businesses related to non-interest-bearing deposit mobilization and fund utilization." Following this directive, the first interest free bank in the history of the country had been established selling shares in the name of Zamzam Bank. But the NBE

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issued a new directive No. SSB/51/2011 that limits interest free banking (IFB) only to the possibility of opening interest free windows by conventional banks that led to the termination of the Zamzam Project. Currently, there are 8 conventional banks that are offering interest free services through window system. The need for interest free finance among Ethiopian Muslims together with the lack of interest by the government to permit a full-fledged interest free banking indicate there is a gap in the financial inclusion policy in Ethiopia. This leads Ethiopian Muslims to be economically disadvantaged, marginalized and bystander in huge investments of the country.

The provision of interest free services by conventional banks created suspicion among Muslims who do not believe that the service is compliant with sharia principles. For Muslims who need full-fledge interest free finance, accessing interest free services from conventional banks is difficult to accept as a sharia compliant finance (Kerima, 2016). In this regard, the arguments are; Ethiopian Muslims are excluded from the conventional financial services of the country due to religious reason; the newly introduced interest free banking services by the conventional banks did not meet its objective as Ethiopian Muslims prefer full-fledge Sharia compliant financial services; and the introduction of full-fledged Islamic finance in Ethiopia can reduce the level of financial exclusion of Ethiopian Muslims.

Although Islamic finance is expanding in different part of the world, even in countries where the Muslim population is small like UK, Australia, Kenya which are using Islamic finance and Islamic fund to include their Muslim citizens in the financial system, Ethiopia, with more than 34 million Muslims, has not yet allowed the establishment of full-fledged interest free finance except interest free window services exclusively offered by conventional banks. In this direction, the main motivation of the study is to explain the extent of religiously-driven financial exclusion and to assess the role of Islamic Finance in tackling of financial exclusion in Ethiopia.

LITERATURE REVIEW

This paper is concerned only on specific aspect of financial exclusion; religiously-driven financial exclusion. Any specific definition of religiously-driven financial exclusion has not been found. But, it may be defined as a type of financial exclusion resulted from the absence or lack of financial products and services which are compliant with religious principles. Recently, all countries around the world adopted conventional financial system. Some features of this financial system are not acceptable by certain group societies. For instance, interest is strictly prohibited by the three Abrahamic beliefs, i.e. Judaism, Christianity and Islam (Meera, 2004). However, only Muslims are trying to observe their religious principle regarding to the prohibition of interest. According to the study done by Demirgüç-Kunt, Klapper and Randall (2014), with a sample of over 65,000 adults from 64 economies, representing 75 percent of the world's adult Muslim population, the result shows that Muslims are more likely than non-Muslims to report religion as a barrier to account ownership. Furthermore, different studies such as Sain, Rahman and Khanam (2016); Zulkhibri (2016); Gaisbauer, Schweiger and Sedmak (2016); Redin and Calderon (2015); Tomalin (2015); World Bank (2014) and Adewale (2014) identified religious reason as a cause of financial exclusion of Muslims. This is because of the fact that conventional financial services are against sharia principle. Any research conducted on the topic of religious driven financial exclusion in Ethiopia except the speech of vice governor of NBE, Getahun Nana has not been found. He said that the NBE is conducting a study on the demand of sharia compliant financial services and this is important to know the extent of Muslims excluded from the financial sector (Reuters Africa, 2016). There are several

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indicators in the existence of religious driven financial exclusion. The main reason issued in SSB/51/2011 directive by NBE was the strong public demand for interest free finance products in Ethiopia.

Demirgüç-Kunt et al. (2015) stated that there are 2 billion adults in the world who have no access to finance. The majority of them are from Muslim dominant countries (Mirakhor, & Iqbal, 2012). According to Global Islamic Finance Report (2017), the estimated number of Muslims in the world is 2.038 billion. Among these Muslims, not more than 20% are those who have access to finance. This means, 80% of Muslims in the world have no access to financial services. One of the main reasons of exclusion of Muslims from accessing to finance is religious reason. The interest based conventional financial services and products do not meet the needs of Muslims as they are not compliant with sharia principles (Sain, Rahman, & Khanam, 2016). To solve this religiously driven financial exclusion, different scholars and financial institutions recommended the expansion of sharia compliant financial services to enhance the financial inclusions of Muslims. Demirgüç-Kunt et al. (2015) recommended the development of financial products compliant with Islamic financial principles to expanding account ownership. Mohieldin et al. (2011) addressed two approaches of enhancing financial inclusion through Islamic finance. These approaches are promoting risk-sharing contracts and redistribution of wealth among societies. The instruments under the two approaches are presented in the Table 1.

In general, Islamic finance provides productive financial instruments, which can reduce poverty and inequality of wealth distribution if employed based on sharia principles. So, to achieve these results, the expansion of Islamic financial institutions is very important. In addition to this, the expansion of Islamic financial institutions determines the financial inclusion of Muslims. The expansion of Islamic financial institutions will enhance the financial inclusion of Muslims (Mohieldin, Iqbal, Rostom, & Fu, 2011).

RESEARCH METHODOLOGY

Myriads of literature indicate the value of combining qualitative and quantitative means of data collection. Bhattacherjee (2012), for instance, stated that use of qualitative means of data collection in combination with quantitative method (mixed-mode of design) helps to develop unique understanding in to a complicated social phenomenon that cannot be obtained from either type of data alone. Furthermore, Creswell (2013) also supports the above argument. He stated that mixed method of data collection is the best in providing a more comprehensive understanding of a research problem than either type of data alone. Hence, following such recommendation from literature, in this research, data were collected through combination of qualitative and quantitative method.

As stated by Kothari (2004) collecting data through questionnaires is most widely exercised in several economic and business surveys. Survey offers a quantitative data of trends, attitudes, or opinions of a

Table 1. Approaches of financial inclusion by Islamic finance

Approaches	Instruments
Risk-Sharing Contracts	Islamic Banking Products and services Islamic Microfinance products and services Islamic Insurance/Takaful
Redistribution of Wealth institutions	Zakat, Sadaqa, Waqqf and Qard-al Hasan

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population by collecting data from the sample. Since, questionnaires are well structured, they are easier to process the data and draw comprehensive conclusions (Creswell, 2013). Therefore, in this section, a detail description of survey questionnaires utilized in this study including procedures carried out in the development process is presented. There are different steps to develop survey questionnaires and interview questions. According to Gideon (2012) the first step in developing survey questionnaire is reviewed the existing instruments used by different researchers in the same area and the second step is a decision whether to use existing instrument as it is, modify and adapt or develop a new questionnaire. Regarding the decision whether to adopt, adapt or create new tool, different ideas are forwarded by experts. For example, Boynton, and Greenhalgh (2004) argued that, employing an existing authorized survey will save time and resources; and important to compare the result with other findings. In line with this, an attempt was made to identify questionnaires which was employed in previous studies which have similar topic with this study. Specifically, the most similar study with this study was Warsame (2016). Thus, the questionnaire employed in Warsame's (2016) study was taken as a main source. However, since there are contextual factors which are different from Warsame's study, some necessary modification was made from the original items. Finally, after finalizing the questionnaires, to avoid language barrier, the questionnaire was translated to Amharic language.

The final questionnaire contains 32 questions which are classified into five sections with specific questions for different objectives. The first section consists six questions which assess the background information of respondents like sex, age, educational level, monthly income and work status. The second section consists of 12 questions. These questions are designed to collect data about the extent and natures of financial exclusions of Ethiopian Muslims and reasons of exclusions. Generally, the questions under this section are designed to answer the first research question of this study i.e. What is the extent and nature religious driven financial exclusion Muslims in Ethiopian? The third section of the questionnaire contains 3 questions. These questions are designed to collect information for research question 2 i.e. How is the access of Ethiopian Muslims toward the existing interest free banking services offered by Conventional banks? The fourth section of the questionnaires consists of 5 questions. These questions aimed to provide answer for research question 3 i.e. Has the introduction of fullfledged Islamic finance in Ethiopia can significantly enhance the level of financial access to Ethiopian Muslims? The fifth and the final part of questionnaire has 6 questions. This part of the questionnaire was designed to assess the attitude of participants towards interest free finance and financial exclusion. This part was measured through Likert scale ranging from 1 "Strongly Disagree" to 5 "Strongly Agree".

To strengthen the findings of the study and enrich the data collected through questionnaire, semi-structured interview was also used. Semi-structured interview is a type of interview, in which questions are prepared but the interviewer may adjust the arrangement or the question throughout the interview progress (Ary, Jacobs, & Sorensen, 2010). Semi-structured interviews allow for a flexible approach to interviewing (Doodi & Noonan, 2013). The researcher can prompt and ask in detail about a given state (Kajornboon, 2005). The key informants for interview was National Bank of Ethiopia and other commercial Banks that are offering interest free banking services by windows system. These two groups were selected based on their direct relation with the issue of financial system. National bank of Ethiopia is on the authority of issuing financial regulations and other banks are rendering interest free banking services. Therefore, interviewing personnel in this institution will render in-depth information about the topic under study.

In this research, Ethiopian Muslims who are living in Addis Ababa by the time of data collection were the population of the study. Thus, Addis Ababa is selected as it constitutes people from all corners

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of the country. According to Ethiopian Islamic Affairs Supreme Council (EIASC), Addis Ababa has 1 million Muslims (U.S. Department of State (2005). Therefore, the sampling frame could estimate to be about 1 million. Samples were selected using stratified sampling technique which is one of the probability sampling technique. The total population was grouped in to 10 strata based on sub-cities. From these 10 sub-cities, three sub-cities namely Addis Ketema sub-city, Kolfe Keranio subcity and Gulele Sub-city were randomly selected. From these sub-cities areas that are believed to have substantial number of Muslim inhabitants were targeted. These areas include; Mercato (considered as the biggest market in Africa), Business centers with majority Muslim, Islamic Associations and Mosques. Following this, using Roasoft sample calculator, a total of 384 samples were randomly selected from these three sub-cities. As evidences from literature indicated, Roasoft sample calculator is among the reliable sample size calculator/softwares (Nwachukwu, 2015). Roasoft sample calculator use population size, Margin of Error (Confidence Interval) and Confidence level to determine appropriate sample size. Accordingly, in this study, with the population size of 1 million, 95% confidence level and 5% margin of Error (Confidence Interval), the estimated appropriate sample size become 384.

The data collected through survey questionnaires was coded and analyzed. Based of the nature of the data, appropriate statistical analysis was employed. For demographic variables and nominal data, descriptive statistic like frequency and percentage was used. For the data collected through Likert scale, inferential statistics mainly, factor analysis were employed. Out of the total 384 questionnaires distributed, 340 participants responded. In the process of editing to check errors and omissions, 19 questionnaires were excluded from the analysis because of incomplete response. Hence, the final analysis is conducted using total of 321 responses. To analyze semi-structured interview data, The steps stated by Piercy (2004) is applied. Firstly, the transcript is analyzed carefully. Following this, observations are developed based on evidences presented in the transcript. After this, attempt was made to identify connection between the information provided by key respondents and develop meaningful pattern. Finally, the information was organized around the basic themes and analysis were made in line with the research questions.

EMPIRICAL FINDINGS

It is apparent from Table 2 that the majority of the respondents, which is 188, (58.6%) who participated in this study were between the age of 18 and 30. In addition to this, this table clearly shows that the respondents younger than 50 represented 97.5% of the total. Regarding to gender, Table 2 shows that, 57.9% (186 out of 321) of the people who participated in this survey were male and the rest 41.2% (135) were female. The sample was fairly distributed between the two sexes with males slightly higher.

As demonstrated in Table 2, majority of the participants were married (57.3%) followed by singles which account 40.5%. Divorces were constituted as 2.2%. Table 2 also shows that the highest number of respondents 182 (56.7%) had qualified degree level following secondary education 63 (19.6%). Generally, majority of the participants (298) achieved above secondary educational level.

Regarding to respondent's occupation, Table 2 demonstrated that, 164 (51.1%) of the respondents was employee of public and private sectors while merchants and students represented 27.4% and 5.6% respectively. Of the total participants, only 4.7% were unemployed. Further, From Table 2, it is possible to understand that all categories of income levels were fairly represented in this survey. Of the total participants, the monthly income of 68 (21.2%) was between 1501 and 3000 Ethiopian Birr. While, 22 (6.9%) of participants have a monthly income less than 1500 Ethiopian Birr.

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Table 2. Respondents' demographic results

Demographic Variables	Category	Frequency	Percentage
Age	18-30	188	58.6
	31-40	101	31.5
	41-50	24	7.5
	51-60	7	2.2
	Above 61	1	0.3
	Total	321	100.0
Gender	Male	186	57.9
	Female	135	42.1
	Total	321	100.0
Marital Status	Married	184	57.3
	Single	130	40.5
	Divorce	7	2.2
	Total	321	100.0
Educational Level	Illiterate	2	.6
	Primary School	12	3.7
	Secondary School	63	19.6
	Vocational Training	25	7.8
	Degree	182	56.7
	Master's Degree	27	8.4
	PHD	1	.3
	Other	9	2.8
	Total	321	100.0
Employment Status	Merchant	88	27.4
	Student	18	5.6
	Employed	164	51.1
	Unemployed	15	4.7
	Other	36	11.2
	Total	321	100.0
Monthly Income	< 1500	22	6.9
	1501-3000	68	21.2
	3001-4500	66	20.6
	4501-6500	35	10.9
	6501-7500	40	12.5
	7501-10000	38	11.8
	Above 10000	52	16.2
	Total	321	100.0

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The overall result presented under this section is expected to show the clear picture of the status and extent of financial exclusions of Ethiopian Muslims. Participants access to conventional financial services such as bank account, bank loan, insurance, microfinance and home financing are presented in the Table 3.

Table 3 shows that, out of 321 people who participated in the survey, 50.8% used savings account, 10.9% used current account and 16.8% used salary account. Totally, 286 respondents (89.1%) had an account in conventional banks. The rest, which is 35 (10.9%) respondents, had no account in conventional banks. With regarding to conventional bank loan, Table 3 shows that, 303 (94.4%) of the total respondents who participated in this survey did not use conventional bank loans. Only 18 (5.6%) respondents used conventional bank loans.

Table 3. Respondents' Access to Conventional Finance

Financial Services	Category	Frequency	Percentage
Conventional Bank Accounts	Saving Account	163	50.8
	Current (Checking) Account	35	10.9
	Time Deposit	4	1.2
	Special Saving Account	30	9.3
	Salary Account	54	16.8
	None	35	10.9
	Total	321	100.0
Conventional Bank Loan	Home (Mortgage) Loan	5	1.6
	Personal Loan	9	2.8
	Automobile Loan	1	0.3
	Business Loan	3	0.9
	None	303	94.4
	Total	321	100.0
Conventional Insurance	Home Insurance	4	1.2
	Third party vehicle Insurance	70	21.8
	Medical Insurance	19	5.9
	Other Insurance programs	6	1.9
	None	222	69.2
	Total	321	100.0
Conventional Microfinance	Loan services	3	0.9
	Saving services	29	9.0
	Other services	9	2.8
	Non	280	87.2
	Total	321	100.0
Condominium Housing	Yes	120	37.4
	No	201	62.6
	Total	321	100.0

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As shown in Table 3, concerning to conventional insurance, 222 (69.2%) of respondents did not use to conventional insurances while the remaining 30.8% of respondents used to diverse types of conventional insurance programs. Of the respondents who used conventional insurances, the majority (21.8%) used third party automobile insurance. As depicted in Table 3, while majority 280 (87.2%) of the participants did not use microfinance services, it was only 41 (12.7%) that indicted they used Micro finance products and services. As the data shows in Table 3, most respondents 62.6% (201), out of 321, were not registered for home financing program. The remaining 37.4% were registered.

Literature shows that, Ethiopian Muslims used conventional saving services by thinking to avoided interest (*riba*) by different ways. Depending on this, a question to participants were given whether they used conventional bank saving services and for what purpose they used the interest income from their saving. The result of this question is presented in Table 4.

As demonstrated in Table 4, the total numbers of respondents who have account in conventional banks were 286. Out of 286 respondents who had conventional bank account, 191 (66.78%) saved in special saving/deposit account. This type of account is available in all conventional banks in Ethiopia for those who do not wish to collect interest from their saving. The rest 90 (31.47%) respondents used interest based account and they donated the interest income to poor people.

The reasons of respondents who did not use conventional financial services is presented in Table 5. As can be seen from Table 5, of the total respondents who did not have conventional bank account, 16 (45.7%) indicated religion as a factor for not having a bank account. The rest 37.2%, 14.3% and 2.8% did not have a bank account because of not having enough money, no need to save and other reasons respectively.

Pertaining to conventional bank credit, Table 5 presents the reasons why respondents did not use the basic conventional bank loan services. Out of 303 participants who did not use conventional loan, most of them 198 (65.3%) indicated religion as a main cause. The second main reason that was reported by 28.1% of the participant for not using credit was lack of interest to borrow. Additionally, as shown in the above table, 128 (57.7%) of respondents did not use conventional insurances due to religious reason i.e. insurance products are against religious principles. In the category of "other reasons", respondents stated lack of knowledge and lack of interest for insurance programs were the main reasons.

In connection with microfinance services, as Table 5 shows, most respondents 188(58.6%) who did not use micro-finance replies religion is the main factor for not using it. The second main reason that was reported by 70 (21.8%) participants was lack of need to borrow or save from conventional microfinance. Regarding to condominium housing, of the total 201(62.6%) respondents who were not registered in condominium housing program, their main reasons for not registering were 47.8% religious reason. In the category of other reasons, as indicated by 76 (37.8%) respondents, not having enough money, having their own house, and difficult bureaucracies in registration were also reasons for not registering.

Table 4. Participants' usage to interest income from their savings

For What Purpose Do You Use the Interest From Your Saving?	Frequency	Percent
I save in special account/without interest	191	66.78
I give the interest to the poor people	90	31.47
I use the interest with principals	5	1.75
Total	286	100.0

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Table 5. Respondents' reason for not using conventional financial services

Financial Services	Reason for Not Accessing	Frequency	Percentage
Conventional Bank Accounts	I don't want to deal with interest	16	45.7
	I don't need to save	5	14.3
	I don't have enough money to save	13	37.2
	Other	1	2.8
Conventional Bank Loan	I don't want to deal with interest	198	65.3
	I don't need to borrow	85	28.1
	I have tried but not successful	5	1.7
	Other	15	4.9
	Total	303	100.0
Conventional Insurance	Products are against religious principles	128	57.7
	I have tried but not successful	3	1.3
	Other Reasons	91	41.0
	Total	222	100.0
Conventional Microfinance	I don't want to deal with interest	188	58.6
	I don't need to borrow/save	70	21.8
	I have tried but not successful	15	4.7
	Other reasons	7	2.2
	Total	280	100.0
Condominium Housing	I don't want to deal with interest	96	47.8
	I have tried but not successful	29	14.4
	Other reasons	76	37.8
	Total	201	100.0

As a principle, sharia prohibited interest based financial transactions. Some respondents used at least one of the conventional financial services. So, it is necessary to know their justifications for using it. Table 6 summarizes the justifications of respondents who used one of the above mentioned conventional financial services.

Table 6 shows that 128 (48.5%) of respondents said unavailability of sharia complain financial services was the main reason for using at least one conventional financial services. Of the total participants who

Table 6. Respondents justification for accessing conventional finance

Respondents` Justification	Frequency	Percent
Unavailability of alternative Sharia compliant financial services	128	48.5
You do not believe they are not noncompliant with Sharia	20	7.6
Accessing is mandatory	78	29.5
Others	38	14.4
Total	264	100.0

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use conventional financial services, 78 (29.5%) respondents indicated using conventional finance like third party vehicle insurance and salary account was mandatory.

The result of participant's knowledge and access to interest free banking services is presented in Table 7. It is apparent from Table 7 that, 273 (85%) of participants knows about the availability of interest free banking services which is offered by conventional banks. The remaining 15% did not know about the availability of this service.

As Table 7 demonstrates, 218 (67.9%) of respondents did not use interest free banking products and services offered by conventional banks. The remaining respondents, 16.8%, 14%,0.9% and 0.3% use Wadiah (Saving Account), Amanah (Current Account), Mudarabah (Profit sharing saving or fixed time deposit account) and Murabaha (Cost-plus sale) respectively.

With regard to reason for not accessing IFB products and services offered by conventional banks, Table 7 shows that, 88 (40.36%) participants said, they were not interested since it is offered by conventional banks. In additions, 76 (34.86%) respondents' perceived IFB window services is not difference from conventional financial services.

The result of questions presented for participants who were in business regarding to their source of finance to start up their business is reported in Table 8.

As illustrate in Table 8, out of the total 321 respondents, 98 (30.5%) were participated in Business. From those 98 who were in business, 97 respondents did not take loan from any financial institutions. In addition to this, 88 respondents did not ask any financial institution which offer interest free services. As indicated in Table 8, From 98 respondents who were in business, for 52 (53.06%) of the business owners, the source of finance for their business came from family and friends while 24 (24.5%) participants start their business using their own capital.

The expectation of Ethiopian Muslims from the introduction of full-fledged Islamic finance is reported in Table 9. As can be seen in Table 9, if interest free finance is introduced in Ethiopia, more than half

Table 7. Knowledge and access of respondents regarding to IFB window

Question	Response	Frequency	Percent
Do you know IFB window services are being offered in Ethiopia by conventional banks?	No	48	15.0
	Yes	273	85.0
	Total	321	100.0
Types of IFB window services used	Wadiah (Saving account)	54	16.8
	Amanah (Current account)	45	14.0
	Mudharabah (Profit Sharing)	3	.9
	Murabaha (Cost-plus sale)	1	.3
	Not accessed	218	67.9
	Total	321	100.0
Reason for not accessing IFB services with conventional banks	Not interested as they are being offered by conventional banks	88	40.36
	Not interested as they are not different from conventional finances	76	34.86
	I have applied but was not successful	5	2.30
	Other reasons	49	22.48
	Total	218	100.0

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Table 8. Sources of capital of respondents in business

Questions	Response	Frequency	Percent
Are you in Business?	Yes	98	100.0
Did you take out a loan from any bank or any other financial institution when you were starting up your business?	Yes	1	1.02
	No	97	98.98
	Total	98	100.0
Did you approach any of the institutions offering interest free financial products for raising finance for your business?	Yes	10	10.20
	No	88	89.80
	Total	98	100.0
What was your Source of fund when you start up business	Own Capital	24	24.5
	Family and friends	52	53.06
	Not answered	22	22.44
	Total	98	100.0

Table 9. Plans of Muslims to participate in full-fledged Islamic finance

If Full Fledge Islamic Finance in Ethiopia Is Started, How Will You Participate?	Frequency	Percent
I will be a customer	207	64.5
I will buy share	108	33.6
I will advertise it	6	1.9
I will not participate	0	0
Total	321	100.0

of the participants (207, 64.5%) indicated that they wanted to be a customer. Similarly, 108 (33.6%) of the respondents indicated that their interest was to be a shareholder.

Participants were also asked to report what the contributions of full-fledge Islamic finance to Muslims in specific and for the country's economy in general. The result indicated that, participants perceived the introduction of full-fledge Islamic finance will bring the following main benefits:

- Increase the participation of Muslims in the financial system of the country.
- Balance the wealth distribution of the country.
- Enhances economic development.
- To reduction poverty.

The attitudes of participants towards the existing conventional financial services and Islamic finance, was measured using 6 Likert scale questions. The result was analyzed using Principal Component Analysis (PCA).

In this research survey, there are six statements which were designed to measure the respondents' perception towards the existing financial services and Islamic finance in Ethiopia. These six statements is reduced into a more manageable and meaningful category that enhance to get an underling perception and to make possible interpretation. Hence, PCA was utilized. Before running PCA, the sample

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size adequacy is tested by using factor analysis such as Kaiser-Meyer- Olkin (KMO) and Bartlett`s test. Table 10 presents the result of these tests.

According to the above table, the KMO value is 0.74, which is above the commonly recommended value 0.6 (Field, 2009) and the Bartlett's Test of Sphericity was significant χ^2 (15) = 353.289, p < .001. This KMO and Bartlett's Test of Sphericity result suggests the feasibility of running factor analysis for this study. If factor analysis is applied, the next step is to choose the most appropriate method of data extraction. In this study, Principal component analysis (PCA) which is the most common method of data extraction was used.

As Smith (2002) stated, PCA is a technique of identifying patterns in data and expressing the data by their similarities and differences. After identifying the pattern of the data by reducing the number of dimensions, it is easy to compress the data. Table 11 shows the result of factor analysis based on Principal Component Analysis and Varimax rotation with Kaiser Normalization.

According to Pallant and Manual (2010), Kaiser's criterion of retaining factors with eigenvalue greater than 1 was common method to decide how many factors to extract. Therefore, in this study, components with eigenvalue greater than 1 were retained. As it is shown in Table 11, two factors (preference towards Islamic finance and inconvenience towards conventional financial services) with an Eigen value greater than one, (2.49 and 1.07) were found. The two-component solution explained a total of 59.49% of the variance, with component 1 contributing 41.52% and Component 2 contributing 17.96%. To support the interpretation of the two components, varimax rotation was performed.

According to Table 12, the six items have been reduced into two components. The next step is to look at the content of the six questions that load onto the same factor to try to identify common themes. Usually, a loading of an absolute value of more than 0.3 is taken (Field, 2009). Therefore, by looking at the pattern in rotated component matrix table, statement 1, 2 and 3 are loads highly in component

Table 10. KMO and Bartlett's test results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.743
Bartlett's Test of Sphericity	Approx. Chi-Square	352.289
	Df	15
	Sig.	.000

Table 11. Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.492	41.525	41.525	2.492	41.525	41.525	1.951	32.515	32.515
2	1.078	17.966	59.491	1.078	17.966	59.491	1.619	26.977	59.491
3	.782	13.036	72.528						
4	.656	10.930	83.458						
5	.586	9.761	93.219						
6	.407	6.781	100.000						
Extraction Method: Principal Component Analysis.									

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Table 12. Rotated component matrix for PCA varimax rotation

Q. No.	Statements	Component	
		1	2
1	The introduction of full-fledge Islamic finance in Ethiopia will enhance financial inclusion, poverty reduction and economic development.	.800	
2	By increasing access to full-fledged interest free financial products and services, the socio-economic status of Ethiopian Muslims will be improved (Example potential to acquire a property, participation in investment etc.)	.765	
3	If full-fledged Islamic finance introduce in Ethiopia, I prefer to access it.	.684	
4	The provision of interest free financial services by conventional banking window system is not encouraging Muslims to access it.		.820
5	Historically, Ethiopian Muslims were known for trade and production, however in the current financial system, they are excluded from these sectors due to unavailability of sharia compliant financial sources.		.708
6	There are many Ethiopian Muslims who are not accessing financial products and services due to religious reason and would do so if they had a real alternative.	.433	.598
	Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		
	a. Rotation converged in 3 iterations.		

one while statement 4, 5 and 6 loads highly in component two. The questions in each component have the same characteristic and measure the same phenomenon. Questions in component one addresses the perception expressed by respondents about their preference of full-fledged sharia compliant finance by Ethiopian Muslims. On the other hand, questions in component two measures participants inconvenience towards the existing conventional financial services.

The two-component solution to the attitude towards existing financial services and Islamic finance are preference factors and inconvenience factors. The preference factors examine the preference expressed by Ethiopian Muslims regarding the full-fledged sharia compliant finance. As Table 13 illustrates, the level of agreement concerning the participant's preference of full-fledged sharia compliant finance was within the range of 95%-98%.

Inconvenience factors examine the inconvenience expressed by Ethiopian Muslims regarding the existing conventional financial services. The agreement level for these three statements was between 64.5%-79.1% as can be seen from Table 14. Hence, Inconvenience factors clearly shows that conventional financial services and IFB services on offer by conventional banks were not convenient for Ethiopian Muslims.

Table 13. Preference to full-fledged Islamic finance

No.	Statement	% of Agreement*
1	The introduction of full-fledge Islamic finance in Ethiopia will enhance financial inclusion, poverty reduction and economic development.	96.2%
2	By increasing access to Full-fledged IFB finance products and services, the socio-economic status of Ethiopian Muslims will be improved (Example potential to acquire a property, participation in investment etc.)	97.5%
3	If full-fledged Islamic finance introduce in Ethiopia, I prefer to access it	95.6%

*By adding agree and strongly agree

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SOLUTIONS AND RECOMMENDATIONS

In this section, recommendations are proposed that could be considered for enhancing the inclusion of Ethiopian Muslims in the financial system for stakeholders such as Government, National Bank of Ethiopia (NBE), Development Bank of Ethiopia (DBE), Interest Free banking (IFB) window providers, Ethiopian Islamic Affairs Supreme Council (EIASC), Muslim communities and educational institutions which are itemized as follows:

- The financial access and inclusion in Ethiopia is at lower level due to different causes. Ethiopian Muslims in particular are not benefiting from the existing conventional financial system of the country due to religious reason. Therefore, with a strategy of using innovative Islamic financial products,the government of Ethiopia can consider religious issues when developing financial policies and regulations like Condominium housing program.
- The need of Ethiopian Muslims for Sharia compliant financial services is clear and net. They need both the interest free service and participation in the ownership of financial institutions. But, the regulatory framework does not allow that. There is no regulatory framework that permits the establishment of interest free insurance and microfinance. Therefore, NBE should develop regulatory and supervision framework that support wide financial inclusion. One of the communal problems identified by IFB window providers is the absence of division within NBE that controls the activities of IFB window. Hence, NBE should create a division that is responsible for the issue of interest free finance within the structure of NBE and should assign sharia advisory to check whether the IFB window services are operating in accordance with sharia principles.
- DBE is established to support the development of the country by providing finance to viable projects. But, all financial products of DBE are only interest based which is against sharia principles. Due to this, Muslims are not benefiting from this financial opportunity as a nation. Therefore, DBE should think alternative sharia compliant innovative financial products to Muslims who are not using interest based financial products.
- EIASC is a responsible institution to enforce the rights and benefits of Muslims. Therefore, it is expected from EIASC to work with the government to look a way for the establishment of Islamic financial institution. This study shows that there is a skepticism about IFB window services in Ethiopia. Therefore, interest free window providers should check their services in accordance with sharia principle, make clear their products and working procedures, provide products further than deposit collection, modifying marketing strategy and develop innovative products suitable for Muslims.

Table 14. Inconvenience regarding to services of conventional financial institutions

No.	Statement	% of Agreement*
4	There are many Ethiopian Muslims who are not accessing financial products and services due to religious reason and would do so if they had a real alternative.	73.5%
5	Historically, Ethiopian Muslims were known for trade and production, however, in the current financial system, they are excluded from these sectors due to unavailability of sharia compliant financial sources.	79.1%
6	The provision of Islamic banking services by conventional banking window system is not encouraging Muslims to access financial products.	64.5%

*By adding agree and strongly agree

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- The ownership of IFB windows are still on the hands of conventional banks. To allow the participate Muslims in the ownership of banks, IFB window providers should segregate the capital of IFB window or establish IFB through subsidiaries to offer separate share of IFB for public. Ethiopian Muslims have been requesting the government for many years to permit interest free finance. However, NBE permitted only interest free window. Therefore, Muslim Communities should continue demanding for licensing of full-fledged interest free banking, insurance and Microfinance institutions. In addition to this, to empower the economically weak Muslim societies, Ethiopian Muslims have to work with EIASC to formalize Islamic wealth redistributive instruments like *Zakat, Waqf, Sadaqa* and *qard al-Hassan.* as innovative products and services.

FUTURE RESEARCH DIRECTIONS

It is suggested that future research may include the following which are some extended topics in this area: the potential of Islamic microfinance in Ethiopia; the potential of Islamic insurance (Takaful); institutionalization of Islamic wealth redistribution instruments such as Zakat, Waqf, Sadaqa and qard al-Hassan in Ethiopia; the consequences of financial exclusions of Muslims in Ethiopia. Further studies can also be conducted on the same topic of this study by covering all regions of Ethiopia.

CONCLUSION AND DISCUSSION

Scholars such as Warsame (2016) and Mohieldin et al. (2012) suggested that Muslims who adhere to Islamic principles are not benefiting from conventional financial system or they are not using conventional financial services as it is against sharia principles. Similarly, the finding of this study indicates that 10.9% of the respondents did not use conventional saving services, 94.4% did not use credit, 69.2% did not use insurance, 87, 2% did not use micro finance, and 62.9% did not use home financing such as condominium housing program. This idea was also confirmed by the qualitative data collected through semi-structured interview. All interviewees stated that Ethiopian Muslims are not utilizing services rendered by conventional banks. Therefore, majority of Muslims refrains from accessing credit, insurance, microfinance and home financing.

Religion was the main factor for 45.7% participants for not using bank saving, 65.3% for not using bank credit products, 57.7% for not using insurance, 58.6% for not using microfinance and 47.8% for not using home financing program. In addition to this, 73.5% of the respondents believe that many of Ethiopian Muslims are not using financial products and services due to religious reason. Similar finding was also reported by Ben et al. (2015) and World Bank (2014). These sources noted that Religious reason is one of the common causes for financial exclusion of Muslims across the world.

Ethiopian Muslims are excluded from conventional banks particularly state-owned banks (such as Commercial Bank of Ethiopia (CBE) and Development Bank of Ethiopia (DBE)), insurance services and microfinance institutions as well as from state-owned projects like condominium housing program. DBE was established to foster the countrywide development program through providing finance and close technical support to projects in priority area. Recently DBE is providing finance to long term investment projects in Agriculture, Argo-processing and Manufacturing. However, as the bank provides only interest based finances, Ethiopian Muslims did not get the opportunity to participate in the DBE's services.

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As stated earlier, conventional financial systems in Ethiopia are against sharia principles. Although the majority of the respondents (89.1%) used savings account, including special saving or salary account, 66.78% of them use their bank accounts with zero interest (interest free account) and 31.47% of them donate the interest income to poor people. This figure is exaggerated as compared to the country wide figure reported by World Bank (2014). According to World Bank (2014) report, only 14% of adults have saving account in conventional bank. The high number of participation reported in this paper regarding access to savings is mainly attributed to the fact that the data was collected from Addis Ababa, where substantial number of banks are concentrated. Through either using interest free banking or donating the interest to poor people, Muslim customers believe, as they avoid interest which is prohibited by Islamic sharia. Saving money in Conventional banks either in interest free account or by collecting interest to donate it for poor peoples may result to losing the value of money (time value of money) comparing to other people who use the money with interest. Sankaramuthukumar and Devamohan (2008) also reported evidence which strengthen this finding. They stated that Muslims avoid interest by opening interest free account or by donating the interest to the poor people. In order to improve the lives and contribute to part in the growth of the Muslims, there should be financial institutions that provides strategically important innovative financial products which comply with sharia principle and provide interest free credit.

Although, as a principle, sharia prohibits interest based financial transactions, some of the respondents use at least one of the conventional financial services. Their justification for the use of conventional financial services emanates from unavailability of alternative Sharia compliant financial services (48.5%) and mandatory nature of using some of the services like third party vehicle insurance coverage (29.5%). In Ethiopia, for example, it is obligatory for automobile owners to have third party vehicle insurance coverage. Due mainly to the contradiction of the provision of conventional financial services, Muslims are excluded and unable to prosper and contribute their part in the process of their community's or country's development. In line with this, 79.1% of the respondents suggested that Ethiopian Muslims cannot compete in trade activities and production due to unavailability of sharia compliant financial sources. It is also suggested that those Muslims who own their own business have got the capital to start up either from their family or friends. Bayrne and Anderson (2015) stated that there is no financial institution that offers Islamic finance for substantial number of the Muslim population who need sharia compliant finance. In the absence of sharia compliant financial services, it is by no means that Muslims compete with other groups of people in the country.

Even though the majority of the respondents (85%) knew interest free products which are offered by conventional banks, 67.9% of them are not using these products. Despite the provision of Islamic banking services by conventional banking window system, Muslims are not encouraged to utilize this services due mainly to the interest-based services of conventional banks in Ethiopia. As inferred from semi-structured interviews, there is a mismatch between the public need for interest free finance and the NBE decision. Muslims' intention to open Islamic finance system or banking failed due to lack of interest from the government side as NBE permitted interest free services to be offered only by conventional banks. This decision dissatisfied many of the Ethiopian Muslims who were eager to have banks that comply with sharia principles. The findings of this paper concur with Kerima's (2016). She noted that one of the challenges of interest free banking in Ethiopia is the service being offered by conventional banks.

Currently, throughout the world, Islamic banks are manifested in three forms such as full-fledged Islamic finance, Islamic/interest free Window and Islamic Subsidiaries Banks. However, any literature that support or against the offering of interest free finance through window system is not being found. In the case of Ethiopia, interest free banking services offered by conventional banking failed to decrease

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religious driven financial exclusion as they are unable to create acceptability by Muslim communities who see sharia compliant financial services are not in place.

IFB window services offered by conventional banks are very limited and they target only deposit collecting from Muslim communities. The vice governor of NBE examined the current level of IFB deposit mobilization and said that the deposit collected through IFB window are very insignificant and it is less than 1 percent of the deposit mobilized by commercial banks. Though he did not yet recognize the need of Ethiopian Muslims in establishing a full-fledged sharia compliant financial institution that can boom Muslims' engagement in different production and investment activities.

If full-fledged interest free finance is allowed in Ethiopia, all participants have interest to participate either by buying of shares or by being customer or by advertising it. In support of this, the two-component result of factor analysis shows that, Ethiopian Muslims prefer the full-fledged sharia compliant finance and inconvenience with the existing conventional financial services. Such strong demand among Muslims for the introduction of Islamic banking system in Ethiopia is consistent with the findings of Sankaramuthukumar and Devamohan (2008) who noted Ethiopian Muslims need to separate Islamic bank (Full-fledged) as most of them are interested in opening account and taking initiative if Islamic banking is allowed in Ethiopia.

Considering the role of full-fledged interest free finance in Ethiopia, 97.5% respondents believe that, with an innovative strategy of allowing full-fledged Islamic finance in Ethiopia, it will play a significant role in tackling of financial exclusion, poverty reduction, enhancing economic development and equitable distribution of income. In support of this, Scholars such as Mohieldin et al. (2012), and Naceur et al. (2015), argued that Islamic finance have a potential to enhancing financial inclusion by offering sharia compliant financial services. Akhter, Akhtar and Jaffri (2009) and Dhaoui (2015) assert that Islamic financial institutions especially Islamic microfinance institutions play vital roles to alleviate poverty in developing countries. Likewise, Rabaa and Younes (2016) noted that Islamic finance have a potential to enhance economic development and Islamic finance positively and significantly relevant with economic growth.

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KEY TERMS AND DEFINITIONS

Conventional Finance: It is a transaction based on interest rate for savings surplus or deficit spending units to loan or borrow funds in financial markets.

EIASC: Ethiopian Islamic Affairs Supreme Council.

IFB: Interest free banking.

Islamic Finance: It is a financial system based on Sharia principles while providing financial services.

NBE: National Bank of Ethiopia.

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Chapter 25
The Role and Importance of the Strategic Plans as an Innovative Tool in Determining the Direction of Companies From the Financial Success Perspectives

Mustafa Tevfik Kartal
Borsa İstanbul, Turkey

ABSTRACT

Companies have a variety of aims. Among them, the most important one is to survive. However, survival is not an easy subject in the global environment. Even surviving becomes harder while competition increases. So, companies have to deal with both globalization and competition at the same time. Although it is possible to mention about lots of tools, one of the most important innovative management tools is strategic planning in terms of the financial success perspectives. The strategic plan (SP) is a tool that can be used to shape their future and to survive by companies. It is concluded that SPs have important benefits. Firstly, SPs make the contribution to the survival. Secondly, SPs are helpful to plan future. Thirdly, SPs are used as a guide. Fourthly, SPs trigger good management practices and innovation culture because of requiring transformation processes. Fifthly, due to triggering internal transformation works, SPs make the contribution to gain the comparative competitive advantage. Sixthly, by implementing SPs well, it is inevitable to reach good financial results.

INTRODUCTION

Nowadays, the world has become more global and digital than it has never ever been before. This structure results in the complex and competitive environment for every actor in the economies causing new entries of competitors to sectors. This is an important threat for the companies which exist and operate currently

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in sectors. It requires companies to initiate the renewal process and works. This is external sources of the transformation. It is possible starting of renewal process by internally with companies' own initiative. As a result, it can be said that the more environment changes, the more studies companies start.

Similar to the world, the business environment has been also changing and becoming more complex. Therefore, in today's world, companies need to think and act much more long-term based in order to survive and continue their growth. Thinking and acting long-term based is a key point and a management tool. They are quite crucial for companies in terms of financial success and determining their direction to which they move. At this point, the important question is that how companies should proceed or how companies achieve this. Companies can achieve this by setting strategies and applying strategic plans (SPs).

The strategy can be summarized as either decision that is preferred by companies or necessary action plan to reach aim (Fabozzi & Peterson Drake, 2009, 328; Kartal, 2017, 112). Strategic planning can be described as complex long-term planning and forecasting containing risks regarding the future of the companies (Kiran, 2016, 86). Due to these characteristics, strategic plans have the potential to affect the future of companies in many ways (Mehrotra & Gopalan, 2017, 62). Taking into consideration these definitions, strategic plan, which is an output of strategic planning process, is evaluated as an important tool to be used by companies to survive, sustain growth, shape their future, determine the direction and achieve financial success. The strategic plan also satisfies a detailed roadmap need of companies in order to reach their aims and targets.

SP has been gaining much more importance in terms of shareholders and BoD of companies recently. Even in some important and critical sectors, BoD is required to prepare the strategic plan by regulatory authorities. At the same time, these show that companies have the opportunity to use a strategic plan as leverage in order for their financial success. This phenomenon is also valid for companies established and/or operating in Turkey. So, companies in Turkey should also use SP for survival and should give the necessary importance and attention to SP for their financial success as well.

This paper is prepared to make an evaluation about the role and importance of the strategic plan in determining the direction of companies from the perspectives of financial success. In this study, it is intended to deal with the strategic plan as an innovative management tool and to evaluate their role and importance in way of companies to reach to financial success. In this context, analyzing the position of SP is a must in order to be able to make an evaluation about whether SP could play an important role and make positive effect and contribution to the financial success of companies or not.

The study consists of six 5 parts. After the introduction part, concepts of strategy and strategic plan are examined in the second part. Within the context of the literature review, some studies regarding the strategic plan are reviewed in the third part. In the fourth part, a conceptual discussion is made upon the role and importance of the strategic plan in determining the direction of companies from the financial success perspectives. Finally, an evaluation is made in the fifth part.

STRATEGY AND STRATEGIC PLANS

Companies aim to create the highest profit by using optimum resources and decreasing costs and which is the best for them (Zengin, 2017, 98). Companies search for ways in order to reach this. Although it is possible to mention many options, one of the most important tools is strategy and strategic plan.

The strategy is described as the plan of necessary actions to reach the aim (Fabozzi & Peterson Drake, 2009, 328). The strategy can also be defined as all rules and approaches which provide companies to

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reach their targets with the least loss (Thompson & Strickland, 2001, 18). Another definition of strategy is the choice of direction for the firms as a whole (Kathwala, 2003, 10). These all definitions show that each company should have a strategy in order to survive, continue operations, proceed successfully and reach to the success and targets. Those are set in the strategy of the companies. However, it is still in question of how companies can put their strategy into effect. In other words, when companies complete the preparation and determination of strategy, how they should go on regarding the implementation process. At this point, the answer is the strategic plan.

Strategic planning can be described as complex long-term planning and forecasting containing risks regarding the future of the companies (Kiran, 2016, 86). In this context, SP is conceived for companies of bigger dimension with a focus mainly on the strategic intentions and actions to undertake during the planning period (Martino, 2017, 11). SP is the output of the strategic planning process to be used by companies moving to the future set by senior management.

SP provides companies strategic thinking ability. Strategic thinking is important for all companies especially in technological change, global competition and innovation, and increased dynamic in markets in which companies operate. From this point of view, SP could be considered a key determinant of survival and success of companies (Skrt & Antoncic, 2004, 107).

SP is one of the most common methods of which companies use. The goal of SP prepares minds that are capable of making the better strategic decision (Kaplan & Beinhocker, 2003, 71). SP is used in order to plan the position in which companies want to reach in the future and to determine necessary steps and actions to be taken for that (Kiran, 2016, 86; Zengin, 2017, 100). In other words, SP provides a perspective to companies for the determining direction of companies. Determination of direction of companies can make enormous effects on performance companies as well (Dinçer, Tatoğlu, & Glaister, 2006, 208). However, in order to be able to move to the point that companies want to reach, companies should make SP by taking into consideration a lot of factors such as technological infrastructure, employees, and budget (Bryson, 2011, 11). In other words, SP must be supported with the necessary steps and resources in companies (Zengin, 2017, 98).

In order to prepare much more efficient and effective SP, some companies like banks, holdings, and exchanges have been establishing strategic planning departments (Carter, 1999, 46). Nowadays, strategic planning departments can be seen in most of the companies.

In this part of the study, firstly preparation of SP is examined. After that, the implementation of SP is discussed.

Preparation of Strategic Plans

SP process consists of different but related stages. These are organizational values and principles, vision, mission, analysis of internal and external environment, SWOT, key performance indicators, aims, targets, strategies and policies, action plans, resources allocation, and performance measurement (Küçüksüleymanoğlu, 2008, 404). Besides this, a good SP has 3 main characteristics. These can be stated as follows (Harrison, 1995, 48):

- SP should be harmonious with aims and targets of companies,
- SP should be prepared for the future,
- SP should state elements which are not under the control of companies but could affect companies.

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SP process could be changed according to the structure of companies. In this context, the following criteria are recommended to be taken into account in the SP process (Weston, 1989, 6):

- Changes in environmental factors should be evaluated,
- Capacity and constraints of companies should be commentated,
- Expectations of shareholders should be taken into account,
- Competitors of companies, sector national and international economic environments and developments should be analyzed,
- Mission, aim, and policies for the main strategy should be stated,
- Sensitivity analysis should be developed against external factors,
- Performance criteria should be created,
- Long-term strategy program should be prepared,
- Short and medium-term strategic plans should be prepared,
- Necessary financing and organization requirements for all steps above should be determined,
- Necessary information flow and feedback system should be designed,
- The process should be evaluated and revised if necessary.

In order to be accepted and applied of SP by everyone in companies, some actions should be taken in organizational culture. These actions are recommended as follows (Weston, 1989, 6):

- Strong senior management and leadership approach,
- Inquisitive approach rather than paper-based works,
- Taking group decisions,
- Establishment of long-term relations with employees,
- Rapid change instead of bureaucratic procedures,
- Expanding career path,
- Management supporting risk-taking,
- Expanding authorities,
- Learning from customers.

In order to move to the desired point in the future, companies must prepare SP taking into account their technological infrastructure, employees, and budget (Bryson, 2011, 11).

Implementation of Strategic Plans

Implementation is one of the most important phases of the SP process. Implementation means that total sum of activities for the execution of SP. Implementation includes programs, budgets, and procedures (Kathwala, 2003, 14). The success of SP depends on its relationship with financial planning and following up by senior management.

In order to reach the success, SP should be supported with necessary resources and steps. For example, a company would like to make an investment regarding technology within 6 years. If this investment was not supported by financial resources, it is impossible to produce any results by planning.

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Most of the time, SP requires change management and hence SP moves with change management. Therefore, the changes required by SP such as in information technology systems, organizational structure, and corporate structure should be accepted and applied by companies (Zengin, 2017, 99).

They are important for companies that strategy should be translated into operational terms; organization should be aligned with the strategy, strategy should be made everyone's job; strategy should be made a continual process; change should be mobilized through executive leadership in order to benefit from strategy and strategic plan (Kaplan & Norton, 2001, 1-3). Hence, companies could have the opportunity to take into strategy and strategic plan effect and benefit from them. In order to create value creating strategy, companies can follow a framework including 4 different perspectives as follows (Kiran, 2016, 92):

- **Financial Perspective:** Companies should take into consideration the financial structure of companies while preparing SP. It is an important point to support SP with necessary financial resources.
- **Customer Perspective:** Companies should give attention to the needs of customers while determining the point that they want to reach in the future. Companies can survive only as long as they meet the needs of customers.
- **Internal Factors:** Companies should evaluate internal factors such as management decisions, organizational structure, education and abilities of employees, constraints to be applied to SP. Otherwise, SP will be only a theory.
- **Innovation and Learning Perspective:** Planning requires and causes change management most of the times. Accepting and applying changes required by SP is important. Some of these changes are the transformation of the information technology system, organizational structure, business processes and deploying much more digitization in companies.

In order to successful SP approach, following 4 main actions should be taken by companies (Kachaner, King, & Stewart, 2016, 26-31):

- SP should be prepared according to short, medium and long-term stating timeliness of each action/steps,
- Long-term SP should be prepared longer than 5 years and for companies' vision, mission, way, technological risks, megatrends etc.,
- Medium-term SP should be prepared for business partnerships, business models, roadmap,
- Short term SP should include evaluation of opportunities regarding the evaluation of current strategy and accelerating processes.

It is impossible to say that everything will be okay in the implementation process. In other words, there are always pitfalls in the implementation process to be paid attention by companies. These can be named as process failures. It consists of lack of commitment of senior management; too few individuals involved in the process; keeping the scorecard at the top; an over-long development process; hiring inexperienced consultants (Kaplan & Norton, 2001, 8). Some insights can be stated in order to successfully develop and implement the strategy and to avoid the pitfall. These are that the current focus on analytics and data may be harmful; integrative thinking supports effective strategy development; successful strategies offer simple, elegant solutions; and strategy development is continual (Martin, 2014, 5). Elements of strong execution are those: "1) everyone has a good idea of the decisions and actions for which they are

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responsible; 2) important information about the competitive environment gets to headquarters quickly; 3) once made, decisions are rarely second-guessed; 4) information flows freely across organizational boundaries, and; 5) filed and line employees usually have the information they need to understand the bottom-line impact of their day-to-day choices" (Neilson, Martin, & Powers, 2008, 86).

Taking into consideration that SP requires change management and innovative perspective is one of the most important and crucial elements of SP, it is possible to say that SP is an innovative management tool for companies. So, it would be beneficial for companies benefitting from SP as an innovative tool in determining the direction of companies. Hence, it will be possible to reach financial success for companies. It is impossible for companies to reach success and good financial results unless they prepare, apply and follow up SP. For this reason, implementation has the highest importance in SP process in terms of the success of SP.

LITERATURE REVIEW

There are a variety of studies about the strategic plan. Within the context of the literature review, some selected studies among them are included in Table 1.

As it can be seen from Table 1, there are some studies about the strategic plan in the literature. When grouping these studies according to their focus points, there are 3 groups which are SP's processes, requirements, and results.

Some studies examine SP from requirements focus point. Weston (1989) concludes that strong senior management leadership and support is required and a need in order to provide SP to be accepted by all people in the companies. Harrison (1995) determines that management in SP is quite important and has a substantially important role in terms of the success of SP. Cascella (2002) states that some companies have poor SP and there are 3 signals. These signals are determined as deficiencies in strategic alignment at every level, misallocating resources, and maintaining insufficient operational measures. Bozkurt (2015) concludes that participation of employees in the SP process should be provided in order to reach strategic goals and targets. Also, Özer and Bozkurt (2017) concludes with the same result. Zengin (2017) defines that the strong support of senior management is important for SP.

Some studies examine SP from processes focus point. Heracleous (2000) defines that the implementation of SP has not been taking enough attention. Kathwala (2003) also concludes that implementation is an important phase in the SP process. Similar to them, Rowley and Sherman (2002) examines SP from the perspectives of implementation and defines that there are different implementation methods and establishing goals and key performance indicators, using the budget, using the reward system, developing and using change champions, working with institutional culture are stated as some of these methods. Lovallo and Sibony (2006) define that companies could decrease their exposure by adjusting their decision making processes. Dye and Sibony (2007) determine that formal SP processes have an important role in increasing overall satisfaction. Jarzabkowski and Balogun (2009) state that Formal strategic planning process of the companies is associated with implementing, defining, and determining strategic initiatives. Bryson (2011) determines that companies should take into consideration technology, employees, and budget in the SP process. Gibbons and O'Connor (2012) state that there is a considerable debate about the efficacy of formal strategic planning compared with more adaptive strategic planning styles. Sage (2015) defines that implementation includes operationalization of SP into activities leading to the realization of companies' aims and targets.

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Table 1. Some selected studies

Author	Year	Focus Point	Results
Weston	1989	Requirements of SP	There is a need for a strong senior management leadership in order to be accepted of SP by everyone in the companies.
Harrison	1995	Requirements of SP	Management of SP has a critical/key role in the success of SP.
Heracleous	2000	Processes of SP	Although SP is treated as important, unfortunately, the process of SP implementation has not received treated enough attention.
Cascella	2002	Requirements of SP	There are 3 signals showing that companies have poor SP which are the deficiency in strategic alignment at every level, misallocating resources, and maintaining insufficient operational measures.
Rowley & Sherman	2002	Processes of SP	Using the budget, establishing key performance indicators and goals, using the reward system, working with institutional culture, developing and using change champions are some of the implementation methods to be used in SP processes.
Delmar & Shane	2003	Results of SP	The relationship between financial performance and formal strategic planning is positive.
Kathwala	2003	Processes of SP	Implementation is one of the most important phases of the SP process.
Honig & Karlsson	2004	Results of SP	The relationship between financial performance and formal strategic planning is negative.
Skrt & Antoncic	2004	Results of SP	Achieving company-wide support for strategies, precisely formulating generic business strategies, and precisely formulating strategy could be beneficial for smaller firms' growth.
Dinçer et al.	2006	Results of SP	Determination of companies' way makes a positive effect on companies' performance.
Lovallo & Sibony	2006	Processes of SP	Companies could decrease their exposure by adjusting their decision making processes.
Dibrell et al.	2007	Results of SP	The financial success of the companies is derived from SP. Successful companies use a combination of formalized and ad hoc SP.
Dye & Sibony	2007	Processes of SP	Formal SP processes have an important role in increasing overall satisfaction.
Glaister et al.	2008	Results of SP	The strategy has importance in competitiveness and development of innovation.
Jarzabkowski & Balogun	2009	Processes of SP	The formal strategic planning process of the companies is associated with implementing, defining, and determining strategic initiatives.
Carter & Pucko	2010	Results of SP	There is a high failure rate in SP implementation.
Philip	2010	Results of SP	Strategic choices affect responses of companies to the changes in their environment.
Bryson	2011	Processes of SP	In order to reach the desired point in the future, companies should take into consideration a lot of factors such as technological infrastructure, employees, and budget in the planning process.
Ecevit Satı & Işık	2011	Results of SP	A strategy, which is different from competitors, provides sustainable competitive advantages to companies.
Tang et al.	2011	Results of SP	There is a need that results of SP according to estimated should be benchmarked and SP should be revised if necessary.
Gibbons & O'Connor	2012	Processes of SP	There is a considerable debate about the efficacy of formal strategic planning compared with more adaptive strategic planning styles.
Skokan et al.	2013	Results of SP	Big companies can have more often prepared a detailed strategy than small companies.
Dibrell et al.	2014	Results of SP	Formal strategic planning processes and planning flexibility of companies are positively related to innovativeness.
Robbins et al.	2014	Results of SP	A good SP taking into consideration needs of companies results in good financial performance.
Bozkurt	2015	Requirements of SP	Providing participation of all employees to SP is important.
Sage	2015	Processes of SP	Implementation involves operationalization of SP into activities that lead to the realization of aims and targets of companies.
Özer & Bozkurt	2017	Requirements of SP	Strategic goals and targets could only be achieved by including the company's employees in the SP process.
Zengin	2017	Requirements of SP	Innovation and learning perspective, customer perspective, internal factors perspective, and financial perspective are required components in order to apply SP. Also, strong senior management support is important for strategic planning.
Martin	2018	Results of SP	The typical approach to strategic planning and SP is not useful for companies.
Nzioki et al.	2018	Results of SP	There is a relationship between strategic plan implementation and service delivery.

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In addition, there are some studies examining SP from result points. Delmar and Shane (2003) determine that the relationship between financial performance and formal strategic planning is positive. On the contrary, Honig and Karlsson (2004) state that the relationship between financial performance and formal strategic planning is negative. Skrt and Antoncic (2004) concludes that precisely formulating strategy can be beneficial for the growth of companies. Dinçer et al. (2006) state that the determination of companies is important and it makes positive effects on the performance of companies. Similarly, Dibrell et al. (2007) define that SP provides financial success of companies. Carter and Pucko (2010) state that the failure rate in SP implementation is quite high. Glaister et al. (2012) determine that competitiveness and development of innovation can be achieved by applying the strategy. Philip (2010) concludes that strategic choices of companies could affect their responses to changes in the environment of companies. Ecevit Satı and Işık (2011) define that a company having a different strategy from competitors could have competitive advantages. Tang et al. (2011) determine that results of SP should be benchmarked according to budget and necessary corrective actions should be taken. Skokan et al. (2013) define that big companies have a detailed strategy than small companies. Dibrell et al. (2014) determine that formal strategic planning processes and planning flexibility of companies are positively related to innovativeness. Robbins et al. (2014) conclude that a good SP, which takes into consideration the needs of companies, could result in good financial performance. Martin (2018) defines that a typical approach to strategic planning and SP is not useful for companies. Nzioki et al. (2018) determine that service delivery is related with strategic plan implementation.

When appraising studies in the literature, it can be said that SP has benefit potential and companies could benefit from SP only if the process is well managed, implementation is well done, necessary structures are designed, results are followed up and necessary actions are taken by companies.

A DISCUSSION UPON THE ROLE AND IMPORTANCE OF STRATEGIC PLANS AS AN INNOVATIVE MANAGEMENT TOOL IN DETERMINING THE DIRECTION OF COMPANIES FROM THE FINANCIAL SUCCESS PERSPECTIVES

After reviewing concepts of strategy and strategic plan, important points in preparation and implementation of SP, a conceptual discussion toward the role and importance of strategic plan as an innovative management tool in determining the direction of companies from the financial success perspectives is made. Hence, it is likely to state the role, importance, effects, and benefits of SP to the companies from financial perspectives.

In this part of the study, firstly the role of SP as an innovative management tool is examined. Secondly, the importance of SP in determining the direction of companies is reviewed. As a last subunit, thirdly a discussion regarding the effects and benefits of SP in management, innovation, competition, and financial success is made respectively.

Role of Strategic Plans as an Innovative Management Tool

As stated in the earlier part of the study, applying SP requires making a variety of changes in companies. In other words, a change management should be applied in order to apply SP, deploy necessary changes, and reach good results, specifically financial results. In the context of the change management, companies need to renew their some features. These can be varied from organizational structure to corporate struc-

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ture (incorporated company, limited company etc.), information technology systems, business processes, and digitization. This shows that at the same time SP can be evaluated as a change management tool.

Companies could benefit from SP at the high level by preparing good SP and implementing SP efficiently, effectively and in a productive way. This puts forth innovative side of SP. Due to fact that SP requires companies to begin transformation processes, it can be said that SP is as one of the innovation resources in the companies having the potential to trigger most activities. When companies start these activities and well manage the change process, then it would be possible to benefit from SP as an innovative management tool. Otherwise, it would be impossible to benefit from SP of companies.

Importance of Strategic Plans in Determining the Direction of Companies

As stated earlier, SP is the output of the strategic planning process of which can be described as complex long-term planning and forecasting containing risks regarding the future of the companies (Kiran, 2016, 86). Taking into consideration these definitions, SP could be used by companies moving to the future.

Besides being an innovative management tool, SP could also make the contribution in determining companies' direction. By preparing and applying SP, companies and their management set aims and targets of companies, and define the point that they would like to reach. As soon as setting these, there are no barriers to start necessary actions and works in companies. By doing so, companies have begun a journey starting today of companies to future companies' future. With this journey, it is aimed to benefit from good management practices, creating an innovation environment, developing competitive advantages and reach good financial results. It is obvious that there is anything to be helpful for companies if they do not define their way that they want to go. At this point, SP has enormous importance by achieving this for companies.

Also, the primary role of leadership is an important point to be stated. Without a leadership, which means that there is lack of a strong senior management support and guide, it would not be possible to make any effect or any contribution of SP in determining the direction of companies or reaching good financial results. Therefore, good leadership and strong management support are important for the success of SP's preparation and implementation. Hence, companies could benefit from SP.

Effects and Benefits of Strategic Plans in Management, Innovation, Competition and Financial Success

Making planning in concert with strategy, in other words, strategic planning is so important for companies at the macro and micro level.

In the view of macro sight, business life and environment become much more global and companies have had to work in the global marketplace. Rapid of change is increasing and it occurs at any time as unprecedented pace. That is why SP takes the crucial role in determining the direction of companies and detailed roadmap how the companies could reach to their aims stated in SP. In the past, strategic planning and SP were used to lead change by companies. However, the picture is different today than past. Today SP is the main requirement for companies to survive. SP provides companies and their managers to look ahead rather than past, anticipating main streams and changes, and developing strategies to act proactively and successfully through turbulence created by changes (Lawlor, 2006, 73).

In the view of micro sight, in other words at the level of any individual companies, SP enables companies to determine their purpose and directions. It is impossible to go to get anywhere if companies

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do not know where they are going. At this point, SP is seen as the main tool and guide for companies to go to get the point that they would like. SP achieves this by achieving to provide the opportunity to everyone in the organization to know what the company sells or who company's target customers are. A good strategy enables companies to balance sales, revenues with productivity initiatives. Without a presence of good strategy and implementing SP well, unfortunately, companies will react to the pressure of occurring events. Researches show that companies, who do not have SP, have the higher rate of failure than those who have SP and implement SP well (Lawlor, 2006, 73).

However, preparing and implementing a good strategy and as a result, SP is not easy for companies' owners, manager, and leaders. This requires accepting old successes will not guarantee success in the future. Also, SP requires dedicating time-consuming and exhausting works, high commitment, experience, changing behaviors, implementing new procedures that ease supplying needs and demand of customers, putting new systems in place (Lawlor, 2006, 73).

The most important benefit of SP is to align all activities in companies with each other. Otherwise, without implementation, SP become only a theory or ideas which are not useful for companies. In this context, the most important ingredients of the SP process are communication. In practice, it can be seen that although a lot of SP is prepared well, they have become unsuccessful due to lack of communication in companies. So, senior management of companies should give special importance to the communication. This could result in good management practices in companies.

In addition to improvement in management, SP makes the contribution to innovation because of the fact that it requires a lot of renewal actions in the companies. By doing so, companies will start transformation much of the processes consciously or unconsciously. This could result in creating an innovation-based organizational culture and climate which give the opportunity to the companies to present innovative products and solutions to their customers. Hence, companies could benefit from enjoying better sales volume, net profit, a high number of customers and market share. Innovation environment in companies is another benefit of SP to companies.

By developing management structure and innovation culture in them, companies could also get ahead in the competition. Think that your competitors do not make any activities regarding above. Then, it is clear that you, as a company, will go one step forward against your rivals. Beside this, competition enforces companies to act much more effective, efficient and productive. In order to be successful in this environment, SP makes the enormous contribution to companies. These are also other benefits of SP to companies. In addition to the benefits mentioned above, SP also enables companies to improve customer satisfaction, market recognition, better decisions, and solutions.

Due to the development in management, innovation, and competition, companies expect to reach good financial results. In other words, as a natural result of the existence of companies, they try to obtain better financial figures. It is possible to obtain this desire by strategy determining and SP implementation processes. This is an important option and tool that can be preferred and used by companies. Without the strategy and SP practices, it is quite hard for companies to reach better condition and results.

SOLUTIONS AND RECOMMENDATIONS

It is identified that strategic plans are one of the most important innovative management tools to be used for the success of companies. Strategic plans have substantially important effects and benefits on companies. Firstly, strategic plans make the contribution to the survival of companies. Secondly, strategic

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plans are helpful to plan of the future and determine the direction of companies. Thirdly, strategic plans are used as a management tool to manage and guide companies. Fourthly, strategic plans trigger good management practices and innovation culture because of requiring transformation processes in companies. Fifthly, due to triggering internal transformation works, strategic plans make the contribution to gain the comparative competitive advantage. Sixthly and lastly, by preparing strategic plans better and implementing them well, it is inevitable to reach good financial results. In other words, companies will reach to better financial figures and results as a result of strategic plan preparation and implementation processes.

Taking into consideration all these benefits of strategic plans, it is recommended for companies to give importance to strategic planning and implement the strategic plan. Establishing a strategic planning department in companies could be helpful to companies in this process.

FUTURE RESEARCH DIRECTIONS

This paper is prepared to make an evaluation about the role and importance of the strategic plan in determining the direction of companies from the perspectives of financial success. In this study, it is intended to deal with the strategic plan as an innovative management tool and to evaluate their role and importance in companies' way in reaching to the financial success. For this purpose, strategic plans are conceptually examined in a broad perspective.

By emphasizing on important point in preparation and implementation of strategic plans, it is believed that this study makes a contribution to the literature. On the other side, it is also thought that new studies focusing on transformation of strategic plans into implementation, which can be also named as business plan, will also be beneficial.

CONCLUSION

The world has been globalizing and digitalizing. Even it can be said that the world has never become so much globalized and digitalized. These cause an increase in complexity and competition by resulting in new entries to the sectors. New entries are the most important threat for current companies operating in sectors.

In the globalization and digitalization context, every issue also changes regarding the business world. Therefore, change in companies is inevitable. In other words, companies have to deal with the changing environment. Although external factors such as political environment, regulation structure etc. are not under the control of companies, internal factors are largely under control of companies. In this context, dealing with the rapidly changing environment, it is good for companies to start renewal initiates internally. Otherwise, companies would greatly suffer from this change.

In order to deal with globalizing and digitalizing world, complex and rapidly changing business environment, companies should think long-term based and develop solutions in today's world. However, only thinking long-term based is not enough. Besides, companies should prepare a well thought and detailed roadmap for how they can act. Thinking and acting long-term based is a key point and an important managerial characteristic. At this point, strategic plans are one of the alternatives for companies in providing substantial support.

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An important question for companies is that how companies should proceed in order to survive and sustain their growth. Companies always search for answers to this question and may find the answers in strategic plans. Strategic plans can provide a variety of benefits to companies. Even, they could have the crucial role in the financial success and determining the direction of companies to which companies would like to move, and strategic plans have the potential to affect future of companies from many ways due to long-term based characteristics.

In this study, after the introduction part, concepts of strategy and strategic plans, and some studies are examined respectively. In the examination part of the study, a conceptual discussion is made upon the role and importance including effects and benefits of the strategic plan in determining the direction of companies from the financial success perspectives.

It is concluded that strategic plans are one of the most important innovative management tools that can be used for financial success by companies. Strategic plans could substantially important effects and benefits on companies. First, strategic plans could make contribution survival of companies. Second, strategic plans could be helpful to plan of the future and determine the direction of companies. Third, strategic plans could be used as a management tool to manage and guide companies. Fourth, strategic plans could trigger good management practices and innovation culture due to requiring transformation processes in companies. Fifth, strategic plans could make the contribution to gain the comparative competitive advantage because of triggering internal transformation works. Sixth, it is inevitable to reach good financial results by preparing strategic plans better and implementing them well. Hence, companies would reach better financial results as a result of the preparation and implementation of strategic plans.

Taking into consideration all benefits of strategic plans stated above, it is recommended for companies to give importance to strategic planning and implement strategic plans. Establishing a strategic planning department in companies could be helpful to companies in this tough process.

As a last, it is an important point to be stated that taking into consideration findings of the study, the strategic plan could be evaluated as an important tool to be used by companies to survive, sustain growth, shape their future, determine the direction and achieve financial success. As a result, taking into account the potential effects and benefits, it can be said that it is inevitable for companies to use strategic plans. The more strategic plans are prepared and implemented, the more companies benefit. The less importance is given to strategic plans, the more risks occur for companies to lose competitive power, and capability of satisfying customers' demands.

When evaluating issues regarding strategic plans, it should not be forgotten that strategic plans are one basis of the success of companies. So, they will have the influence in shaping companies' existence and future.

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Chapter 26
The Relationship Between Financial Development, Innovation and Economic Growth

Asuman Koc Yurtkur
Bulent Ecevit University, Turkey

ABSTRACT

Along with the globalization process, the relationship between the existence of an advanced financial system, financial development and economic growth has become one of the most debated issues. The financial system, development and development indicators, which play an important role in the overall success levels of the economy, are among the topics to be considered due to this importance. In this study, financial development, economic growth, and theoretical approaches are discussed. Moreover, the fact that the subject is empirically presenting evidence requires examination of this situation with studies in the literature. The presence of the findings obtained empirically, in particular Turkey's economy has made it necessary to include a large empirical literature. The generally accepted financial development indicators, which provide comparability in terms of countries, are examined in terms of financial markets and financial institutions in terms of depth, access, stability and efficiency during the period 2005-2015.

INTRODUCTION

The rapidly changing nature of economies with industrialization continues to change even more rapidly with technology. Increases in income levels and savings levels have led to the birth and development of the financial system. Today, the financial sector has become one of the important dynamics of economic growth. In the financial sector, the ability to quickly reflect the problems and opportunities that exist in the economy, the potential to influence the economy as a whole, suggests that the relationship between financial development and economic growth must be investigated. In addition, the increasing integration between the countries with the globalization process has led to many developments which

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can be regarded as positive and negative economically. Outsourcing in economic policies within the scope of outward development strategies has turned into an open economy model, which has led to the investigation of the effects of these policies on growth. With globalization becoming a concept shaping the world economy, the number of studies investigating the corelation between the level of openness and growth of countries has also increased steadily. In these studies, the answer to the question of how the countries influence the growth of trade openness and financial openness is sought.

Technological developments and innovations, considered as one of the important driving forces in the growth of an economy, underscore the concept of innovation which is gaining more importance especially after the 1980s. When innovation is called, it is desirable to describe a product or a process to be discovered according to the situation. It is the key to long-term growth and continuity of the economy in terms of economics, for the first time to introduce a product or a process. Developing economies and systems have led to the widespread adoption of the concept of innovation in the financial field and the search for the effects of the concept of financial innovation. Because financial innovations with a focus on technology are influencing the supply and demand of money in the economy and affecting growth. As the first financial innovations occur in the developed world's financial markets, Turkey has become the continuation of the implementation of financial liberalization process that began in the 1980s.

The phenomenon of financial liberalization, especially after 1980, led to the start of research on empirical investigations between financial development and growth (King & Levine, 1993). The relationship between economic growth and financial development has begun to be examined by establishing various models and adding variable or variables to the financial development indicators. Thus, the existence and direction of the corelation between financial development-growth has begun to take an important place in the literature. To affect the growth of financial innovation, to contribute to the saving of effects such as growth turns into investment, it increased the importance of this relationship. Because these effects are directly related to the financial intermediation activity. From this, it is possible to establish the relationship between financial development and economic growth as follows:

- Investments need to increase in order for a country's economy to grow.
- An increase in investments is possible with the increase in savings that will provide funds for investments.
- The greater the amount of savings collected in a country, investments will increase in that direction and and the growth rate (ceteris paribus) will be that high.
- The provision of savings in the country depends on the existence of an advanced financial system.
- The transfer of savings to the economy depends on the safe investment environment and the acceptable rate of return.

If this relationship is successfully established; financial markets, which are key factors in ensuring strong economic growth, contribute to economic efficiency by directing resources from inefficient areas to productive areas (Durusu-Ciftci, Ispir, & Yetkiner, 2017: 291).

Together with the innovations and transformations that technology brings to economic life, the relationship between financial development and economic growth has become one of the popular topics to be considered in the literature. The aim of this study is the increasing importance of financial development for the economy in particular Turkey's economy, the theoretical explanation and empirical studies conducted in the literature refers to. Starting from the structure of the financial system, this study deals with this important issue by including both theoretical and empirical studies. Measurement of financial

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development and development indicators, as well as categorical both in terms of generally accepted indicators for Turkey's economy in the 2005-2015 year is analyzed as between tables. The growing importance of financial development for the growth of the economy are set forth in the detailed empirical analysis literature made in terms of Turkey's economy.

FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH: CONCEPTUAL AND THEORETICAL FRRAMEWORK

In terms of economics, the financial system has a structure that has a significant impact on growth. Levine (1996) argues that there is a positive and first-degree relationship between financial development and economic growth, explaining how the financial system is affected by economic growth and how it affects economic growth. It is stated that the level of financial development in economies is an important indicator which will affect the growth, capital accumulation and technological change rates. This situation is also revealed by detailed analyzes in the literature and the rate of economic development and the economic growth model are significantly affected by these developments. Theoretically, the existence of financial instruments implies a significant reduction in information and transaction costs in terms of markets and institutions. This significant impact implies lasting effects on saving rates, investment decisions, technology levels and long-term growth rates in economies.

While the system structure of the financial system may vary from country to country, the functions of the institutions and markets that make up the system include many areas such as improving the efficient distribution and utilization of resources, supporting economic growth by increasing the saving rate, and responding to financing needs. Generally, financial markets are divided into bank-based and market-based. It is widely seen that the financial development has begun in the banking sector and the economies have developed as market-based. The question of which of the two systems is more successful depends on the country (Yetkiner & Seven, 2016: 349-352). It is possible to summarize through the following figure.

In the financial system, the proportion of firms and households that can easily access services provided by financial markets and intermediaries is important. Effectiveness of the financial system; It is measured by how effective they are in reducing information and transaction costs for customers of these markets and intermediaries. Economists also refer to the effectiveness of the financial system, or the progresses within it, as "financial development" (Khan, 2000: 4). From this, it can be said that the changes that took place in the financial structure constituted financial development.

At the conceptual level, financial development has a definition covering the entire financial system. The system that transfers funds from those with an excess of funds to those who are open to funding is defined as the financial system and is considered as one of the elements that constitute the economic system. In essence, the basic function of the financial system is to facilitate funding. Developments in the quality of the five basic functions in the financial system are evaluated as financial development. These functions can be listed as follows (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012: 5):

- Producing and processing information about possible investments and allocating capital based on these assessments.
- Monitoring individuals and firms and exerting corporate governance after allocating capital.
- Facilitating the trading, diversification, and management of risk.
- Mobilizing and pooling savings.

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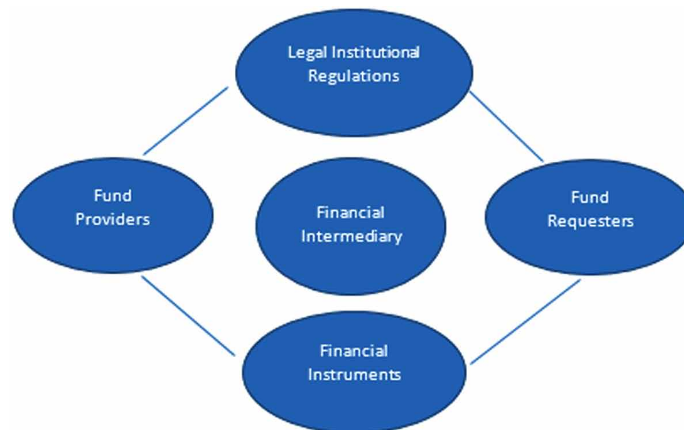
Figure 1. Structure of the Financial System



- Easing the exchange of goods, services, and financial instruments.

Financial institutions and markets around the world differ markedly in how well they provide these key services.

Financial development; can also be defined as the development of financial institutions, financial markets and financial instruments depending on the expected functions. The passage of an economy from self-financing to external financing is considered a financial development indicator. Indicators such as the progress of financial institutions and intermediaries, the development of markets in terms of ease of access to credit, the narrowing of the gap between access to international capital markets and deposits and borrowing interests are among the indicators of the development and deepening of the financial system (Von Furstenberg & Fratianni, 1996: 19). These definitions are included in the literature as one of the dynamics of growing economies as a crucial factor in raising savings and carrying out financial intermediation activities. The concepts of "financial development" and "financial deepening" can also be confused, leading to a confusion of concepts. Financial development is defined as the spread of financial services and the growth of financial institutions. Financial deepening is defined as an increase in the number of financial services and institutions per person or in the income ratios of financial assets (Özcan ve Arı, 2011: 123).

It is also possible to classify this relationship as follows (Evans, Green, & Murinde, 2002: 124):

- First, with the neo classical growth model; it is argued that sustainable growth in per capita output can only become possible as a result of an external technical change.
- Secondly, from the internal growth model; it is possible to say that the main determinants of the increase in output are endogenous variables. In other words, per capita output is constantly growing due to endogenous forces in the economy, especially human capital and knowledge-based.
- Third is the classification developed by Goldsmith (1969), McKinon (1973), Shaw (1973) and Fry (1978), which emphasizes the role and importance of financial growth in economic growth.[1]

The studies (Gurley and Shaw (1955-1967)); which have not studied the relationship between financial development and economic growth, are among the theoretical pioneering studies. While these studies

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point to the importance of the relationship between financial growth and economic growth, they do not say anything about the existence or direction of this relationship. The Patrick (1966) study appears to be the first to conceptualize the relationship between the financial sector and economic development. Accordingly, the relationship is based on a two-way causality. Conceptually, this causality relation is expressed by the demand-following pattern and the supply-leading pattern.

The concept of supply-leading is used to explain the institutional development of the financial sector to stimulate economic growth (Yıldırım ve Çevik, 2017: 42). According to this hypothesis, the direction of the relationship is realized from financial development to economic growth. There are two important situations in the hypothesis. These are to encourage enterprises in the modern sector and accelerate the transfer of resources to the modern, in the sense of the sector. A developed financial system enables the creation of new investment decisions by effectively using resources of assets and determining the direction of economic growth by making an impact on saving rates. An improved financial system will help increase savings in the country and investments contribute to the growth rate (Ergeç, 2004: 57).

The concept of demand following is used to describe the development of the financial sector in order to meet the demand resulting from the developments in the real sector (Yıldırım ve Çevik, 2017: 42). The direction of this relation depends on this hypothesis; from economic growth to financial development. The demand-following hypothesis consists of the growth achieved in the real economy, the technological development and the increases achieved in labor productivity. This development, which is provided in the real economy, mostly causes the emergence of new financial institutions and instruments by emphasizing the necessity of financial services (Aydın, Ak & Altıntaş, 2014: 150).

Patrick (1966) develops a hypothesis other than these two hypotheses that he has developed and defines this hypothesis as a "development phase hypothesis". According to this hypothesis; financial development in the early stages of economic growth leads to the formation of real capital accumulation. Innovation and the diversity of new financial services provide new opportunities for investors and savings owners and lead to self-sustaining growth. As the financial and economic growth progresses, the nature of financial development in the supply front is gradually decreasing day by day and eventually the demand-following situation becomes dominant (Aslan & Küçükaksoy, 2006: 28-29).

In the world, the financial liberalization process has been targeted as two phases, commercial and financial (Edwards & Wijnbergen, 1986: 141). The commercial part of this process, which was the first stage of the process, was investigated by supporting Ricardo's comparative advantage theory (Atamtürk, 2007: 76). Within the framework of new growth theories, it is stated that trade openness affects growth positively (Grossman & Helpman, 1991). The financial part is theoretically supported by McKinnon (1973), Shaw (1973) (as the McKinnon-Shaw hypothesis). This hypothesis is; argues that savings and investments increase due to the high financial diversity in the financially outsourced developing countries and economic growth is positively affected by this. At this point, it can be said that both positive and negative effects on growth are inevitable due to financial openness.

Different and various variables have been used in the literature to measure financial development. For this reason, while there are no agreed development criteria for the work done in this area, there are generally accepted and important variables; money supply, credit, stock exchange, interest, product variety and intermediation cost. Variables such as M1 / GDP, M2 / GDP and M3 / GDP are often used to measure financial depth. Variables formed by the ratio of national income to the definition of various loan amounts are used to measure the development of the banking system. Variables such as the national rate of gross market value of companies traded on the stock exchange are used to measure the development of the capital market. Interest rates are included in the literature as a financial development

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indicator because they affect financial development, deepening and intermediation activities. In addition, financial product diversity and intermediation costs are among the variables used in measuring the development of the financial system (Yetkiner & Seven, 2016: 354-355).

LITERATURE REVIEW

In the literature, it is possible to come across a number of studies that examine the relationship between financial development and economic growth. These studies differ in terms of the countries studied, the data set or the empirical method. Moreover, when it is evaluated in terms of the findings obtained, it is seen that there is no consensus on the relation between economic growth and financial development. The relation between financial development and economic growth is included in the literature with different forms. As a result, it has been the subject of different conclusions and different conclusions. These results can be evaluated in five different ways.

First, financial development is thought to be the source of economic growth. The Schumpeter (1961) study is one of the pioneering studies that show that financial markets are a strong factor with an important role in economic growth. The study highlights that financial markets are a crucial factor for economic growth because of the role of the banking system in allocating savings, encouraging innovation and financing productive investments. Studies in Goldsmith (1969), McKinnon (1973), Fry (1978), King and Levine (1993) are also included in the literature as pioneering studies that show significant evidence that financial development has a positive effect on economic growth. According to this view, the development of the financial system will contribute to economic growth by causing effective allocation of resources. In this direction, it is thought that there is a one-way causality relation from financial development to economic growth. Darrat (1999), Gökdeniz et al. (2003), Çetintaş and Barış (2003), Levine (2005), Aslan and Küçüksoy (2006), Altıntaş and Ayrıçay (2010), Türedi and Berber (2010), Karaca (2012), Mercan and Peker (2013), found results that support this supply-leading relationship.

Secondly, it is expressed that economic growth leads to financial development. Robinson (1952) study is included in the literature as one of the leading pioneering studies of demand-following financial development. In the study, it is stated that the development of the financial system is a result of the economic development by suggesting that the enterprise guided and followed the financial system. Kar and Pentecost (2000), Kandır et al. (2007), Güngör and Yılmaz (2008), Açıkalın et al. (2008), Nazlıoğlu et al. (2009), Ceylan and Durkaya (2010) and Özcan and Arı (2011) also provide results supporting this hypothesis.

Third, the implication is that both financial development affects economic growth and that economic growth affects financial development. Patrick (1966) noted that causality can be two different forms of pioneering work that conceptualizes this relationship between economic development and the financial sector. Ünalmış (2002), Yücel (2009), Çeştepe and Yıldırım (2017) studies have reached the results supporting this situation.

Fourth, there is no significant relationship between financial development and economic growth. Lucas (1988) argues that the determinative role of financial development on economic growth can not be long-term. Stern (1989) also points out that there is no causal relationship between financial development and economic growth in the long run. Grilli and Milesi-Ferretti (1995), Edison et al. (2002), Acaravcı et al. (2007), Öztürk (2008) and Güneş (2013), Gökdeniz et al. (2003) are among the studies that have reached the conclusion that there is no causality relation.

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Finally, opinions may arise that financial development may adversely affect economic growth. Diaz-Alejandro (1985), Hellmann, Murdock and Stiglitz (2000), Nazlıoğlu et al. (2009) are among the studies supporting this view. Also, Boyd and Smith (1992), Caprio and Klingebiel (1997), Williamson and Mahar (1998), Kaminsky and Reinhart (1999), Aizenman (2004) also suggest that financial liberalization causes financial instability and crises.

In this study, especially with the more prominent the effect of financial development concepts such as globalization, innovation and economic growth relationship from the perspective of Turkey's economy. Therefore, Turkey is given mainly literature study. In studies for Turkey as well as in the general literature; it is seen that different results are obtained in terms of the selected period, the indicators of financial development used or the method chosen. In this case, the opinion that there is no consensus on the relationship between financial development and economic growth, Turkey is verified in terms of economy.

Financial development and economic growth relationship in terms of general jurisdiction in studies on Turkey, it is in general relation (either positively or negatively). However, there are also studies advocating the existence of a negative relationship. This relationship for Turkey subject area studies are listed in Table 1 in chronological order.

The empirical literature on financial development-growth relationship is examined for Turkey's economy. Although there is no consensus on this relationship in the empirical evidence, the studies and the results presented are examples of all the hypotheses put forward in this respect. Even if the selected indicators or elements such as the range of observation change the direction or degree of the relationship, the prospects for economies of financial markets do not change. At this point, it is necessary to classify the financial literature and support the literature review.

Table 1. Empirical Literature Summary: Turkey

Author(s)	Period	Method	Results
Kar and Pentecost (2000)	1963-1995	Causality, Cointegration	Economic growth is a stronger cause of financial development, depending on the variables used.
Ünalmış (2002)	1970-2001	VECM Model	In the short term there is causality towards economic growth without financial development. There is long-term interaction.
Gökdeniz, Erdoğan and Kalyoncu (2003)	1989-2002	EKK Regression Analysis	The increase in money supply explains the growth
Atamtürk, (2004)	1975-2003	Granger Causality Analysis	Financial deepness, economic growth is the cause of granger
Danışoğlu (2004)	1987-2003	Granger Causality Analysis	Supply-side relation was supported.
Ergeç, (2004)	1988-2001	Granger Causality Analysis	Short term, the relationship has been determined. Long term, financial developments are the result of economic developments.
Onur (2005)	1980-2002	Granger Causality Analysis	Financial development is increasing GNP.
Aslan and Küçükaksoy (2006)	1970-2004	VAR Anaysis, Granger Causality Analysis	Financial development is the cause of economic growth.
Aslan and Korap (2011)	1987-2004	Granger Causality Analysis	Long-term relationship has been identified.
Kandır, İskenderoğlu and Önal, (2007)	1984-2004	Johansen Cointegration Analysis	According to the analysis result, the result supporting the demand hypothesis is reached. The financial development in Turkey has not reached the conclusion that promote economic growth.

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Table 1. Continued

Author(s)	Period	Method	Results
Acaravcı, Öztürk and Acaravcı (2007)	1986-2006	Cointegration Analysis	The results support supply-side view. The loans opened by the banking sector are said to contribute to the healthy growth of the economy.
Karagöz and Armutlu (2007)	1988-2006	Granger Causality Analysis	According to findings, the development of the stock market is shown as the reason for the economic growth.
Yapraklı (2007)	1990-2006	Time Series Analysis, VEC Model	A positive corelation between economic growth and commercial openness. A negative corelation between openness and financial openness. Findings are valid for long term.
Altunç, (2008)	1970-2006	Granger Causality Analysis	According to the analysis results, the direction of causality varies according to the selected variables. When M2 money supply is taken into consideration, the supply lead hypothesis is reached. When other variables are taken into consideration, both the supply and demand side hypotheses are valid.
Kurt and Berber (2008)	1989-2003	VAR Analysis	Both-way causality relationship between outward openness and growth was determined.
Kaplan (2008)	1987-2006	VAR Analysis	The financial development index has increased the national income.
Açıkalın, Aktaş and Ünal (2008)	1991-2006	VECM Model	A one-way relationship was found between the variables used and the financial development index.
Coşkun, Temizel and Taylan (2009)	1998-2008	Johansen Cointegration Analysis	It has been determined that a positive effect on the banking sector.
Nazlıoğlu and Bayrakdaroğlu (2009)	1987-2007	ARDL Method	The study was carried out using six different variables. It has been achieved that the financial development negatively affects economic growth. According to the positive impact of the private sector credit variable, the results support the demand-following hypothesis.
Ünal (2009)	1995-2008	VECM Model	There is a significant causality relationship from total bank loans towards economic growth. There is a one-way causality relation to manufacturing industry loans without economic growth.
Yücel (2009)	1997-2007	VAR Analysis	Capital market development has a positive effect on economic growth.
Altıntaş and Ayrıçay (2010)	1987-2007	ARDL Boundary Test Approach	Supply-leading hypothesis is supported.
Keskin and Karşıyakalı (2010)	1987-2007	Engle- Granger Causality Analysis	Support the demand-side hypothesis reached the results. In Turkey, economic growth is the cause of financial development is supported opinion.
Soytaş and Küçükkaya	1991-2005	VAR Analysis, Granger Causality Analysis	In the study, indexes were created using financial development variables, but no causality relation was found.
İnce (2011)	1980-2010	Granger Causality Analysis, Cointegration Analysis	In the short term, correlations were found between the variables.
Kıran and Güriş (2011)	1992-2006	Toda-Yamamoto	A bilateral causality relation between commercial openness and economic growth.
Karaca (2012)	1990-2011		A one-way relationship supporting the supply-side hypothesis was found.
Güneş, (2013)	1988-2009	Cointegration Analysis	According to empirical results in Turkey, the financial development does not lead to economic growth.
Mercan and Peker, (2013)	1992-2010	Boundary Test, Cointegration Analysis	Financial development has been identified as the reason for economic growth. The increases in interest rates have increased the economic growth.
Aydın, Ak and Altıntaş (2014)	1988-2012	Granger Causality Analysis	According to the causal relation result, findings supporting the supply leading approach.
Manga, Destek, Tekeoğlu and Düzakın (2016)	1960-2013	ARDL Boundary Test Approach, Toda-Yamamoto Causality Test	Turkey requests that point to causality from economic growth to financial development follow-up is seen that demand following hypothesis is valid
Çeştepe and Yıldırım (2017)	1986-2015	VEC Model, Granger Causality Analysis	According to the results of the analysis, there is a long and short-term two-way causality relation between the variables.

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Turkey literature in the table does not point to a clear conclusion to build consensus on the issue. In the case of work done, the direction of the relationship varies depending on variables or turnover. On the other hand, studies show that there is a wide and rich literature on the subject. This can be considered as a development that emphasizes the efficiency of financial development country for growth.

CLASSIFICATION OF FINANCIAL DEVELOPMENT

Financial development indicators are assessed by the World Bank according to various indicators in terms of depth, access, productivity and stability in two distinct categories as financial institutions and financial markets. These include financial institutions (banks, insurance companies, etc.) and financial markets (such as stock markets and bond markets). It also offers other useful indicators such as concentration and competition measures in the banking sector (www.worldbank.org, 15.07.2018). Table 2 contains generally accepted indicators that measure the development of the financial system. The tabloda shows the basic indicator used for measuring the quality of variables written in bold, while the others show alternative variables.

When comparing the development levels of financial systems, it is important to categorize the development of countries according to their development indicators. It is easy to distinguish, interpret and compare according to the system characteristics. Because it shows how different features of the financial system can be characterized. Turkey's economy in terms of value received generally accepted development indicators in the following table, financial institutions and financial markets are given by the distinction.

Indicators measuring the depth of the financial system are as in table 3 between 2005 and 2015. According to the table, the depth of financial institutions seems to have increased between the years examined. Both the share of private sector credits, which measure the quality of institutions, and the share of alternative indicators increased in GDP. This increase shows that gradually rises in the financial depth of the financial institutions in Turkey. It is also seen that the depth of financial markets is increas-

Table 2. Financial Development Indicators

	FINANCIAL INSTITUTIONS	FINANCIAL MARKETS
DEPTH	**private sector credits / GDP**	**exchange market value / GDP**
	financial institution assets / GDP	exchange transaction volume / GDP
	M2/GDP	private sector accounts / GDP
ACCESS	**account per thousand adults**	**the ratio of the market value of other companies to the total market value of the top ten companies**
	Number of commercial bank branches per 100,000 adults.	government bond yield (short and long term)
	the ratio of the number of people with bank accounts to the total adult population	newly issued company stocks stoku / GDP
EFFICIENCY	**net interest margin**	**stock market turnover rate**
	Non-interest income / total income	real transaction costs
STABILITY	**Z-score that measures bankruptcy risk**	**stock market index volatilites**
	capital adequacy ratio	price / earnings ratio

Source: Yetkiner and Seven (2016). *Banking and Finance System*, 355-356.

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Table 3. Development Indicators in terms of the Depth of the Financial system: Turkey 2005-2015

FINANCIAL INSTITUTIONS			FINANCIAL MARKETS		
Private Credit by Deposit Money Banks to GDP (%)	**Deposit Money Banks' Assets to GDP (%)**	**Deposit Money Bank Assets to Deposit Money Bank Assets and Central Bank Assets (%)**	**Stock Market Capitalization to GDP (%)**	**Stock Market Total Value Traded to GDP (%)**	**Corporate Bond Issuance Volume to GDP (%)**
18,47	40,39	92,39	27,20	36,71	0,05
22,41	43,66	94,49	29,38	38,99	0,07
26,31	46,27	95,59	35,31	44,08	0,03
29,59	49,66	96,80	28,45	38,22	
34,20	58,82	97,84	26,35	39,94	
38,19	63,97	98,47	37,35	50,08	0,06
43,18	64,61	98,76	30,32	46,43	
49,99	68,91	98,89	31,38	44,05	0,15
57,67	74,72	99,01	30,37	43,51	0,36
65,54	81,28	99,13	24,70	44,15	0,26
58,01	70,65	99,24	25,67	45,34	0,13

Source: www.worldbank.org. T*he Global Financial Development Database.* 10.07.2018.

ing. Stock market value and other alternative variables in GDP have shown that the depth is increasing by following an increasing course.

Indicators measuring the access of the financial system are as in table 4 between 2005 and 2015. When the table is examined, it can be seen that the successful table in terms of financial depth does not appear in terms of financial access. There are declines in access indicators for years; in this case, the financial achievement, which is also known as the financial spread, can not be achieved. This causes the

Table 4. Development Indicators in terms of the Access of the Financial system: Turkey 2005-2015

FINANCIAL INSTITUTIONS		FINANCIAL MARKETS	
Bank Accounts per 1,000 Adults	**Bank Branches per 100,000 Adults**	**Market Capitalization Excluding Top 10 Companies to Total Market Capitalization (%)**	**Nonfinancial Corporate Bonds to Total Bonds and Notes Outstanding (%)**
1414,07	12,96	49,16	
1420,27	14,07	51,28	0,01
1393,17	15,34	47,17	0,01
1300,05	17,18	44,03	0
1281,88	17,35	49,58	0
881,54	17,87	53,25	0,05
909,75	18,21	55,09	0,05
917,57	18,56	57,45	0,28
974,06	19,57	49,26	0,90
963,48	19,53	47,20	1,52
1030,20	19,13	60,85	1,67

Source: www.worldbank.org. *The Global Financial Development Database.* 10.07.2018.

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Table 5. Development Indicators in terms of the Efficiency of the Financial system: Turkey 2005-2015

FINANCIAL INSTITUTIONS		FINANCIAL MARKETS	
Bank Net İnterest Margin (%)	**Bank Noninterest İncome To Total İncome (%)**	**Stock Market Turnover Ratio (%)**	**Bank Cost To İncome Ratio (%)**
5,96	37,27	152,03	45,60
5,92	33,40	145,17	46,40
6,11	32,60	142,15	43,07
4,78	28,60	106,48	47,93
6,28	26,43	193,11	37,48
4,84	30,84	147,68	43,10
3,76	32,61	153,71	47,82
4,99	27,19	145,02	43,14
4,20	28,51	149,67	45,95
4,18	12,12	187,38	67,44
3,54	12,97	189,74	61,03

Source: www.worldbank.org. *The Global Financial Development Database.* 10.07.2018.

accessibility of the financial system to not adequately contribute to financial development. This can be attributed to different countries for different reasons. In terms of Turkey; such as the inability to reach adequate levels of savings, the cost of financial services, or the distance from service providers.

Indicators measuring the efficiency of the financial system are as in table5 between 2005 and 2015. While there is no generally accepted definition in the literature on the concept of financial efficiency, many definitions can be made depending on the size of the sector or company. Generally, when the terms of the variables used in measuring the efficiency of the efficiency table in Turkey, where signifi-

Table 6. Development Indicators in terms of the Stability of the Financial system: Turkey 2005-2015

FINANCIAL INSTITUTIONS		FINANCIAL MARKETS	
Bank Z-Score	**Bank Capital to Total Assets (%)**	**Stock Price Volatility**	**Boone Indicator**
9,82	13,40	27,79	0,26
8,53	11,90	27,09	0,17
9,30	12,80	28,51	0,36
7,86	12,10	32,68	0,43
9,39	12,50	39,92	0,37
9,41	12,28	29,07	0,44
8,12	11,71	23,91	0,48
9,20	12,10	24,75	0,53
7,66	10,95	22,32	0,54
7,83	11,59	27,70	0,53
7,23	11	21,68	2,18

Source: www.worldbank.org. *The Global Financial Development Database.* 10.07.2018.

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cant progress is observed that in terms of financial markets and the increase in productivity. This is an indication that productivity is a significant contributor to financial development.

Indicators measuring the stability in the financial system are as in table 6 between 2005 and 2015. The prominence of the stability of financial markets and financial institutions in terms of economics has become more evident with the global crisis. In terms of financial stability in the period examined in terms of tables Turkey, whilst having an increasing momentum, it is seen that a drop in financial stability indicators after 2009 with the impact of the global crisis. As can be seen from the indicators, an increase in financial stability concerns has resulted in the development of an alternative financial policy approach by the CBRT. At the same time, the CBRT put forward the aim of financial stability for the purpose of price stability and underscored the importance of this situation.

SOLUTIONS AND RECOMMENDATIONS

The relationship between macroeconomic indicators and growth also varies in terms of variables examined along with various processes such as technological developments and innovation. This change is directly related to the transformations that take place in economies. In the light of this experience, the impact of financial developments in economics on growth is gaining increasing importance. In order to be able to reveal this prominence, it is emphasized that literature is widely used in the study and it is a rich literature in this subject. Increase in the number of studies investigating the financial development of increasingly contribute to economic growth, Turkey is also observed when examining the literature. All these developments require that the classification of financial markets be developed in terms of development. Financial development can also be used in cross-country comparisons in terms of various indicators. This classification has been put forward in the study in order to show how the different features of the financial system are characterized and how it can be used in analyzes. Thus, it becomes possible to compare the countries in terms of financial development and the specific area of development. At the same time, the classification at hand in terms of describing the development part covered in the analyzes provided also facilitates interpretation.

FUTURE RESEARCH DIRECTIONS

The way in which the topic is handled in general in the study is the theoretical discussions and the analyzes done in the literature. Working in the field of literature by giving wide space to deal with the issue of Turkey's economy, the results obtained in relation to growth and development of the financial issues were tabled. In addition, the diversity in the indicators used in the studies required to deal with the criteria of your development. In this respect, Turkey's economy for the years 2005-2015 between financial development indicators tables were analyzed in terms of commonly used variables. In this way, it is aimed to make it easier to understand what the analysis of the financial system developments is in terms of which indicators are analyzed. Because the studies and the literature show that financial development and financial deepening are used instead of each other. However, one of the characteristics of the deepening financial system is only one. Future studies may include financial development indicators and comparative analyzes of various country groups or several country examples in terms of financial system characteristics.

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CONCLUSION

The changing needs of economies, and innovations brought by developing technologies also change the way economic variables affect each other. Today, globalization and innovation make it difficult to distinguish even some relationships based on the most basic theoretical realities. As a result of these developments, there is a process in which today it is extremely difficult to distinguish whether the consumption of production or consumption is triggered by production. Financial systems and innovations that have emerged as a natural extension of this situation also lead to very different financial development-economic growth relations results in the literature.

Developments in the global financial economy show how important financial development is for economies. How much financial development is necessary to contribute to economic growth in a country has been a controversial issue along with the liberalization process. In this study, the relationship between financial development and economic growth is considered in the conceptual framework and in various aspects. These various aspects can be summarized as follows. Firstly, the concept of financial development is included and a detailed descriptive framework is drawn. Secondly, the effect on economic growth is given to the theoretical explication and historical development of the financial development, which has been a debate for many years. Thirdly, it is supported by the empirical evidence of theoretical discussion of the studies are scheduled to be examined chronologically for Turkey's economy. Fourthly, the indicators that enable countries to be comparable in terms of financial development levels are explained. Fifthly, the study is completed by Turkey in terms of economy and submission of tabulated generally accepted development indicators.

In recent years, especially in developing countries such as Turkey, the increase in financial development and the study of the relationship between economic growth, it reveals that it is more important for financial sector development in developing countries rather than developed countries. The issue of stability of the financial markets -becoming even more important after the 2008 global crisis- it is even more important for emerging market economies such as Turkey. Recent studies in developing countries also show that there is a positive relationship between the development of the financial system and economic growth. For this reason, the presence and importance of financial markets that can not be neglected will continue to be one of the indispensable elements of economic growth targets.

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KEY TERMS AND DEFINITIONS

Demand-Following: Developments in the real sector increase economic growth and financial markets are developing.

Economic Growth: A country, increasing the amount of scarce resources owned or limit the expansion of the production facilities by improving their quality. Or a country has to change its production technology to reach higher production levels.

Financial Development: The development of financial institutions, financial markets and financial instruments.

Suppy-Leading: The presence of developed financial markets, which determine the direction of economic growth.

ENDNOTE

[1] Detailed discussions on this issue is discussed in Arestis et al. (2001).

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Chapter 27
Globalization and Time-Varying Market Efficiency:
An Innovative Approach

Melik Kamışlı
Bilecik Seyh Edebali University, Turkey

Serap Kamışlı
Bilecik Seyh Edebali University, Turkey

Fatih Temizel
Anadolu University, Turkey

ABSTRACT

The main purpose of this study is to determine time-varying weak form efficiency of 18 Borsa İstanbul sub-sector indices. In line with this purpose weak form efficiency is tested with innovative technique alongside traditional methods. The study indicated that bank, real estate invest trusts, holding & investments, telecommunication, wood, paper & printing, insurance, tourism and transportation indices are not linear. The weak form efficiency of aforementioned indices is analyzed with a rolling KSS unit root test developed by Yılancı. It is concluded depending on the applied tests that weak form efficiency of all of the nonlinear sub-sector indices has a time-varying structure. Results also showed that global scale events affect weak form efficiency of the indices in different durations. Findings gained from the study can be used by investors in strategic portfolio management decisions and by policy makers as well.

INTRODUCTION

The efficient market hypothesis which is frequently investigated in finance literature was defined by Eugene Fama (1970) as the market in which all available information is fully reflected in prices, and classified as weak form, semi-strong and strong efficiency. In weak form efficient market model, the sequential price changes are independent of each other. For this reason, it is impossible for investors to obtain return above the market. This situation states that there is no possibility of excessive profit

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opportunity in the market, and prices show random walk characteristic. On the other hand, if the prices have mean-reverting characteristic, in other words if they follow a stationary process, it means that effects of the shocks to prices are temporary and prices will move to own trend in time. In the literature, the efficient market hypothesis has been tested for many markets with different methodologies. But these tests such as unit root test that is widely used in testing efficient market hypothesis, are used under the assumption of linearity. Although the number of the studies that consider the nonlinearity characteristic in testing weak-form efficiency increases in recent years, there is another lack in the literature is the usage of the methods which test the efficiency for whole the period by not considering the time-varying structure. These tests produce only one test statistic depending on the efficient market hypothesis and do not give information about the time-varying structure of the efficiency. But it is not realistic approach for a healthy investment policy to accept or refuse that the efficiency of the market, which is thought to be invested in, does not change within whole the period. Because efficiency of the market may change over the investment period due to the global, economic and sectoral developments with the structural changes such as social and economic events.

Especially recent shocks and different types of crises such as 2008 Global Crisis and European Debt Crisis may change the efficiency structure due to the developments in the market or in a related market. On the other hand, to investigate the efficiency in sectoral basis instead of for whole market presents the opportunity of a deeper analysis. Because to diversify their portfolios efficiently investors may construct their portfolios based on the sub-sectors in stock markets, besides the fundamental investment vehicles such as currencies, gold and bond. Therefore, it is crucial to determine the efficiency structure of the index, which is thought to be invested in, for constructing healthy portfolio management policies, making decisions for investment timing and developing risk management strategies. In this context, the purpose of this research is to test the time-varying weak form efficiency of 18 sub-sector index contained within Borsa İstanbul Industrial (XUSIN), Services (XUHIZ) and Financial (XUMAL) sectors and to determine the events that change the efficiency structure. The fundamental hypothesis of the study is as follows;

H_0: Weak form efficiency of BIST sub-sector indices do not change over the time.
H_1: Weak form efficiency of BIST sub-sector indices change over the time.

Also, the study will search answers for the following questions besides testing fundamental hypothesis.

- Which of the BIST sub-sector indices are linear?
- What are the specific shocks that affect weak form market efficiency and cause structural breaks?
- Which of the weak form efficiency of the BIST sub-sector indices change over the time?
- Which of the weak form efficiency of the BIST sub-sector indices change only in the short-run?

The rest of the paper is organized as follows; in the next step, the literature that includes studies, which investigate the subject of the paper with different dimensions, is summarized. The data and econometric methods used in the paper are explained in section 3. The empirical results are given in section 4 and Section 5 concludes the empirical results.

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BACKGROUND

In the context of investment policy investors can change or postpone investment decisions depending on the market efficiency. Because functioning of the market and allocation of the funds are directly related to market efficiency. If the market is inefficient then some investors can construct strategies in order to gain abnormal returns. In such a situation the expected benefits of the investors especially who do not have enough information about financial markets can decrease. For this reason, market efficiency is a topic that is frequently investigated in the financial literature. In the studies weak form efficiency of different markets are analyzed by different econometric methods. But in most of these studies the stationarity of the series accepted as main assumption. On the other hand, this assumption does not overlap with the real financial data. In this context testing the linearity of the series before the further analyses will increase the validity of the results.

There are many studies in the literature that investigate the market efficiency based on different linearity tests (Fujihara & Mougoue, 1997; Opong, Mulholland, Fox & Farahmand, 1999; Poshakwale, 2002; Sarkar & Mukhopadhyay, 2005; Dorina & Simina, 2007; Lim, 2009; Panagiotidis, 2010). Fujihara and Mougoue (1997) examined the weak form efficiency of crude oil, heating oil, and unleaded gasoline future prices by BDS tests and GARCH (1,1) model for the period of 1984 – 1993. Opong et al. (1999) tested the market efficiency on the basis of Financial Times All Share Index, FTSE 100, FTSE 250 and FTSE 350 indices. The results of BDS test and GARCH (1,1) model showed that indices are not efficient. Poshakwale (2002) tested random walk hypothesis for Bombay Stock Exchange National Index (BSEN) by using 38 listed stock. In the study BDS test and GARCH-M model were used and random walk hypothesis was rejected. Sarkar & Mukhopadhyay (2005) researched the market efficiency for India on the basis of BSESENSEX, BSE100, NIFTY and DOLLEX. Besides Augmented Dickey-Fuller (ADF), Phillips-Perron (PP) unit root test, Automatic Variance Ratio, Andrews's, BDS Tests and GARCH (1,1) model applied to the data. Results indicated that Indian stock market is predictable, in other words, it is not efficient. By using BDS test, Dorina & Simina (2007) tested the weak form efficiency of Turkey, Czech Republic, Slovenia, Romania, Lithuania, Poland, Hungary and Slovakia stock market indices for the period of 1995 – 2007, and it is determined that all of the indices are nonlinear except Romania. Lim (2009) studied market efficiency for Egypt, Israel, Jordan, Morocco and South Africa stock indices by using BDS, Engle LM, Hinich bicorrelation, Hinich bispectrum, McLeod–Li and Tsay tests. Panagiotidis (2010) tested random walk hypothesis for Athens Stock Exchange with linear and non-linear models. Studies that investigate the weak form efficiency of the stock market Istanbul indices in the literature are limited on the basis of linearity (Ozer, 2001; Cinko, 2006; Ozer & Ertokatlı, 2010; Birgili, Üçay & Esen, 2015; Malcıoğlu & Aydın, 2016; Gözbaşı, Küçükkaplan & Nazlıoğlu, 2014). The weak form efficiency of BIST 100 index is tested by Ozer (2001) for sector indices, by Cinko (2006), by Özer & Ertokatlı (2010) and by Birgili et al. (2015) via BDS test, and it was concluded that BIST 100 and sector indices are not linear. Also, by using Harvey, Leybourne and Xiao linearity tests, Aydın (2016) and Gözbaşı et al. (2014) determined that BIST 100 and sector indices are not linear.

In the weak form efficient market model, it is stated that the following price changes are independent, in other words prices show random walk process. This means that shocks in the prices are permanent and not have mean reverting structure. For this reason, stationarity of the investigated markets has to be tested besides their linearity (Hasanov & Omay 2007; Chen, 2008; Hasanov, 2009; Mishra & Mishra,

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2011; Chen & Kim, 2011; Suresh, Joseph & Sisodia, 2013). Hasanov and Omay (2007) analyzed market efficiency of 8 transition stock markets by ADF, PP and Kapetanios, Shin & Snell nonlinear unit root tests. According to the nonlinear unit root tests Slovakian, Czech and Bulgarian stock markets are weak form efficient. Chen (2008), examined the stock market efficiency for 11 OECD stock markets with Markov Switching – ADF tests. The study showed that markets are efficient except Czech Republic, Denmark and Greece. Hasanov (2009), analyzed the efficiency of South Korea stock market by linear unit root tests such as ADF and PP besides Kapetanios et al. (2003) nonlinear unit root test for the period of 1987 – 2005. The analyses showed that South Korea's stock market is not weak form efficient. Mishra and Mishra (2011) tested the efficiency of Indian stock market for two indices and 10 stocks between 1995 – 2005, and concluded stock prices in India is not linear but have random walk. Chen and Kim (2011) investigated the efficiency of 13 stock market indices from Emerging Asian countries for the period of 1987 – 2007, and linear and nonlinear unit root tests indicated different results. Suresh et al. (2013) analyzed the efficiency of BRICS stock markets by Ucar and Omay nonlinear panel unit root tests for the period of 2000 – 2010. Test results indicated that stock markets are stationary, in other words, markets are not weak form efficient. Also, the weak form efficiency of the stock markets are tested by Groenewol, Tang and Wu (2003) for Chine with ADF and PP unit root tests for the period of 1992 – 2001, by Gözbaşı et al. (2014) for BIST 100 and sector indices with Kruse nonlinear ESTAR unit root test after Harvey linearity test, by Gümüş and Zeren (2014) for G-20 stock markets with Fourier ADF unit root tests.

A deficiency in the past studies while testing weak form efficiency is to apply the unit root tests to the linear series by not considering the structural breaks. Because applying unit root tests without considering structural breaks can give misleading results by causing interpreting weak form efficient markets as not weak form efficient. There are many studies in the literature that analyze the market efficiency by unit root tests that consider the structural breaks (Narayan & Smyth, 2004; Ozdemir, 2008; Cheong, 2008; Lee & Lee, 2009; Lee, Lee & Lee, 2010; Lean & Smyth, 2015). Narayan and Smyth (2004) tested the random walk hypothesis for South Korea stock market with Zivot and Andrews one break and Lumsdaine and Papell two break unit root tests between 1981 – 2003. It was determined by the study that that KSE KOSPI has a unit root, and 1987 Wall street stock market crash and the 1997 Asian financial crisis caused structural breaks. By applying different methods including Lumsdaine and Papell two break unit root test Ozdemir (2008) concluded that Istanbul Stock Exchange National 100 is weak form efficient. Cheong (2008), investigated the efficiency of 9 Malaysian sector indices by ADF, PP and Zivot & Andrews unit root tests for the period of 1996 – 2006. Differently from the traditional methods results indicated that most of the sector indices are not weak form efficient. Lee and Lee (2009), studied on the efficiency of different energy prices by using traditional panel unit root and panel unit root under structural breaks tests for the period 1978 – 2006. The study proved that the results change when the structural breaks are considered. Lee et al. (2010) examined the weak form efficiency of 32 developed and 26 emerging stock markets by panel Carrion-i-Silvestre unit root test which considers the structural breaks. Lean and Smyth (2015) analyzed the efficiency of crude palm oil spot and future prices by using different unit root tests. Differently from the other unit root tests, the results of Narayan & Liu GARCH unit root test showed that prices are not weak form efficient.

Another deficiency in the literature is testing the market efficiency for whole the period. But efficiency can have time-varying structure. For this reason, in recent years the techniques that allow the time-varying testing have been used in the studies (Lim, 2006; Lim & Brooks, 2009; Wang, Wei & Wu, 2011; Smith, 2012; Zhang, 2013; Rodriguez, Aguilar-Cornejo, Femat & Alvarez-Ramirez, 2014;

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Shamsuddin & Agbola, 2015; Anagnostidis, Varsakelis & Emmanouilides, 2016; Charfeddine & Khediri, 2016). In this context, the weak form efficiency of markets are tested by Lim (2006) for 11 emerging and 2 developed stock markets, by Wang et al. (2011) for gold market, by Zhang (2013) for oil market, by Sensoy (2013) for stock and Exchange markets, by Katusiime et al. (2015) for Uganda Exchange market, by Anagnostidis et al. (2016) for 12 European stock markets, by Lim & Brooks (2009) for China, Korea and Taiwan stock markets, by Smith (2012) 15 European stock markets, by Charfeddine and Khediri (2016) Gulf stock markets and by Rodriguez et al. (2014) for Dow Jones index. In all these studies different econometric methods were used but the efficiency is tested with rolling window approach by determining sub-samples. Applying tests by this method allows to determine the time-varying structure and the shocks that cause changes on the efficiency.

In sum, it is seen that market efficiency is investigated by econometric methods developed by different viewpoints. But none of them is perfect or totally strong in itself. On the other hand, market efficiency can change over the time due to factors such as financial liberalization and globalization. For this reason, it is thought that to investigate the time-varying efficiency by innovative analysis methods on the sectoral basis contribute to the literature.

METHODOLOGY AND DATA

This study aims to implement prominent but deficient methods in the current literature in a substitutionary manner to determine weak form of efficiency in Borsa Istanbul sub-sector indices.

Variance-ratio, run, serial correlation, unit root (etc.) tests are frequently used to examine weak form of efficiency in financial markets. (Karemera, Ojah & Cole, 1999; Lima & Tabak, 2004; Smith & Ryoo, 2003; Smith, Jefferis & Ryoo, 2002; Charles & Darné, 2009; Buguk, & Brorsen, 2003; Hoque, Kim & Pyun, 2007; Ojah & Karemera, 1999; Al-Khazali, Ding & Pyun, 2007; Jamaani & Roca, 2015; Aumeboonsuke & Dryver, 2014; Erdős & Ormos, 2010; Mobarek & Fiorante, 2014; Kim & Shamsuddin, 2008). Karemera et al. (1999) determine that currency rate is important in equity return dynamics using a multiple variance-ratio test. Lima & Tabak (2004) test random walk hypothesis in China, Hong Kong and Singapore by a multiple variance-ratio test. Results of their analysis show that Hong Kong and China stock exchanges have weak form of efficiency. In addition, the study underlines importance of liquidity and market capitalization in tests of random walk hypothesis. Similarly, Smith and Ryoo (2003) tests random walk hypothesis in Turkey, Hungary, Greece, Poland and Portugal stock markets by multiple variance-ratio test. They conclude that high and low turnover affects results of random walk hypothesis. Smith et al. (2002) test random walk hypothesis in 8 African stock exchanges by multiple variance-ratio and find that the hypothesis does not hold outside South Africa. Charles and Darné (2009) examine weak for of efficiency of Brent and WTI crude oil markets by variance ratio tests. They conclude that Brent crude oil prices are weakly efficient during the period of study, while WTI crude oil market is not. Buguk and Brorsen (2003) analyze random walk hypothesis in ISE financial, industrial and composite indices by 4 different methods. Study concludes that these indices are efficient during the period of study. Hoque et al. (2007) examine efficiency in 8 developing Asian markets by alternative variance ratio tests. They find that several stock exchanges show mean-reverting behavior in certain periods. Ojah and Karemera (1999) investigate efficiency of Latin American markets by multiple variance ratio and auto-regressive fractionally integrated moving-average tests. Study shows that random walk hypothesis holds in Mexico, Chile, Brazil and Argentina markets during study period. Al-Khazali et al. (2007) conclude that Jordan,

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Bahrain, Egypt, Morocco, Kuwait, Saudi Arabia, Oman and Tunisia markets are not efficient in the weak form during 1994-2003. Jamaani and Roca (2015) analyze efficiency of Qatar, Saudi Arabia, Oman, the United Arab Emirates and Kuwait markets by parametric and nonparametric tests. Results of the study show that these markets are not efficient in the weak form. Aumeboonsuke and Dryver (2014) demonstrate sensitivity of parameter-dependent methods used to test efficiency. Using several different methods, Erdős and Ormos (2010) determine that US art auction prices are weakly efficient in certain periods. Mobarek and Fiorante (2014) show that efficiency structure changes relative to crises in BRIC equity markets using variance ratio test. Kim and Shamsuddin (2008) investigate market efficiency in Asia stock markets by variance ratio test. Their paper concludes that market efficiency changes depending on equity market development in the period studied.

Another test frequently used to determine market efficiency is long memory tests (Hull & McGroarty, 2014; Sadique & Silvapulle, 2001; Kristoufek & Vosvrda, 2014a; Kristoufek & Vosvrda, 2014b; Cheah, Mishra, Parhi & Zhang, 2018). Hull & McGroarty (2014) investigate efficiency in 22 developing markets by long-memory tests. The study presents strong evidence of volatility clustering, while returns evidence is weak in the period studied. Similarly, Sadique and Silvapulle (2001) determine that Singapore, Korea, New Zealand and Malaysia stock markets are not efficient. Kristoufek and Vosvrda (2014a) investigate efficiency of 38 stock markets by different methods. Their results indicate that most efficient markets are in Eurozone. Kristoufek and Vosvrda (2014b) study efficiency structure of 25 commodity futures. They conclude that heating oil, WTI crude oil, cotton, wheat and coffee markets are efficient. Using several econometric methods, Cheah et al. (2018) investigate long memory interdependency in Bitcoin markets. Study concludes that Bitcoin markets are not efficient.

On the other hand, recently there is increase in the number of studies considering linearity in determination of market efficiency. However, the applied method often involves application of a single test to the time-independent period. Stationarity of time series is a pre-condition of linearity tests widely used in the literature. Frequently used unit root tests, on the other hand, assume that the time series used to test the stationarity have linear characteristics. This situation can mislead researchers to apply stationary unit root tests to non-stationary time series or non-linear unit root tests to linear series. The linearity test introduced by Harvey et al. (2008) does not suffer from these contradictions since it considers the (non)-stationarity of the series in linearity tests. Therefore Harvey et al. (2008) linearity test is primarily used to investigate weak form of efficiency in BIST sub-sector indices. In Harvey linearity model:

$$y_t = \beta_1 y_{t-1} + \beta_2 y^2_{y_{t-1}} \beta_3 y^3_{y_{t-1}} + \in_t \tag{1}$$

In the model, linearity null hypothesis $(H_{0:s} : \beta_2 = \beta_3 = 0)$, is tested against the non-linearity alternative hypothesis by a Wald statistic $(H_{1:s} : \beta_2 \neq 0 \, and \, / \, or \, \beta_3 \neq 0)$.

In the further steps of the study, the efficiency structure of sub-sector indices determined to be linear by Harvey (2008) test is examined by Kapetanios (2005) unit root test under multiple structural breaks. The primary reason to select this test to examine weak form of efficiency is the considerable length of study period and increasing probability of structural changes due to occurring national/global shocks in this period. As stated by Perron (1989), tests can yield misleading results if structural breaks are not taken into account or structural break is exogenously determined. Kapetanios unit root test allows mul-

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tiple structural breaks while number of breaks and times of breaks are endogenously determined. The model used in Kapetanios (2005) test is as follows:

$$y_t = \alpha_0 + \alpha_1 t + \beta y_{t-1} + \sum_{i=1}^{k} \gamma_i \Delta y_{t-i} + \sum_{i=1}^{m} \varnothing_i DU_{i,t} + \sum_{i=1}^{m} \varphi_i DT_{i,t} + \in_t \tag{2}$$

$$DU_{i,t} = 1\left(t < T_{b,i}\right) \tag{3}$$

$$DU_{i,t} = 1\left(t < T_{b,i}\right)\left(t - T_{b,i}\right)$$

y_t in the model represents the time series stationarity is examined. DU and DT are dummy variables showing structural breaks in the constant term and trend respectively. The null hypothesis $\beta = 1$, is that the series are not stationary. The critical values to test unit root null hypothesis are given in Table 1 of Kapetanios (2005).

After Harvey et al. (2008) linearity test, first a unit root test developed by Kapetanios, Shin and Snell (2003) (KSS) and based on standard ADF test is applied to non-linear sub-sector indices. The null hypothesis of test is that process is consistent with a linear autoregressive process with unit root and the alternative hypothesis is that series follow a stationary ESTAR process. In other words, the null hypothesis of KSS unit root test points to the existence of weak form of efficiency. KSS test model can written as follows:

$$\Delta y_t = \zeta y_{y_{t-1}}^3 + \sum_{i=1}^{p} p_i \Delta y_{t-i} + e$$

Model involves testing equality of ζ parameter to 0. Critical values for KSS test are presented in Table 1 of Kapetanios et al. (2003).

In the last step of study, time-varying weak form efficiency of non-linear BIST sub-sector indices is investigated by rolling KSS unit root test developed by Yılancı (2012). The test involves selecting a subsample of n size and applying KSS unit root test from 1st to nth observation. In further steps, KSS unit root test is applied from 2nd to n+1th observation. This procedure is repeated until last observation of dataset. For example, if a subsample of 36-month is selected, 214 KSS unit root test will be carried out for 1 sub-sector index alone covering 1997M01 – 2017M09 period. In the last step of the method, test statistics obtained from rolling KSS unit root tests are divided by %10 (-2.66) critical value and displayed in the figure. Values above “1” line show stationary times while values below the line show non-stationary periods. In other words, the dates corresponding to values below the 1 line indicate dates at which the examined index is efficient in weak form.

The followed unique steps to test weak form of efficiency in BIST sub-sector indices are summarized below:

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1. Determining descriptive statistics related to BIST sub-sector indices and conducting traditional unit root tests.
2. Identifying linear and non-linear BIST sub-sector indices using Harvey et al. (2008) linearity test.
3. Conducting Kapetanios (2005) unit root test with linear sub-sector indices and identifying events causing changes in weak form of efficiency and structural breaks.
4. Applying KSS unit root test to nonlinear BIST sub-sector indices.
5. Applying rolling KSS unit root test to non-linear BIST sub-sector indices to determine time-varying weak form of efficiency.

The following sub-indices within Borsa Istanbul Industrials (XUSIN), Services (XUHIZ), Financials (XUMAL) sector indices are investigated in this study: Food and Beverage (XGIDA), Wood, Paper and Printing (XKAGT), Chemicals, Petrol and Plastic (XKMYA), Basic Materials (XMANA), Metal Products Machinery (XMESY), Non-Metal Mineral Product (XTAST), Textile and Leather (XTEKS), Electricity (XELKT), Telecommunication (XILTM), Sports (XSPOR), Wholesale and Retail Trade (XTCRT), Tourism (XTRZM), Transportation (XULAS), Bank (XBANK), Leasing and Factoring (XFINK), Real Estate Investment Trusts (XGMYO), Holding and Investments (XHOLD) and Insurance (XSGRT).

Dataset of the study is confined taking into account the time point these sub-indices are launched. XGIDA, For XKAGT, XKMYA, XMANA, XMESY, XTAST, XTEKS, XELKT, XTCRT, XTRZM, XULAS, XBANK, XFINK, XHOLD, XSGRT sub-indices, 1997M01 – 2017M09 period is used. For sub-indices launched at different time points; 2000M08 – 2017M09 period for XILTM index, 2004M04 – 2017M09 period for XSPOR index and 2000M01 – 2017M09 period for XGMYO index is used.

The time interval determined in this study are expected to explain global and national shocks. The analysis will allow understanding the effect of regulations and reforms implemented in response to identified shocks on market efficiency. The closing values of sub-sector indices are obtained from Thomson and Reuters Datastream. Reuters News database is utilized to identify events causing a change in the relations.

EMPIRICAL RESULTS

It is very important to determine the market efficiency especially for risk management. But the descriptive statistics also presents valuable information to the investors. On the other hand, descriptive statistics also have to be checked in order to test if the prerequisites for the analyses are satisfied or not. Therefore, before analyzing the time-varying weak for efficiency of the BIST sub-sector indices, in the first step descriptive statistics of the monthly logarithmic values of the series are calculated, and results are given in Table 1.

As can be seen from Table 1 that Sports, Insurance, Bank, Food & Beverage and Wholesale & Retail Trade are the indices that have the highest mean, and Electricity, Tourism, Textile & Leather and Leasing & Factoring have the lowest mean. When the values are analyzed from the side of standard deviation it is seen that Bank, Wholesale & Retail Trade, Food & Beverage, Insurance and Basic Materials sub-sectors have higher risk in comparison to other sub-sectors. All of the sub-sectors except Sports and Electricity have negative skewness values. This situation indicates that these series move away from normal distribution, and big shocks are possible in these sub-sectors. According to Jarque-Bera test all of the series except Sports and Electricity do not distributed normally. After calculating descriptive statistics and

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Table 1. Descriptive Statistics of BIST Sub-sector Indices

	Mean	Median	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
XBANK	10.72	11.29	1.26	-0.94	2.87	36.92*
XELKT	7.85	7.84	0.32	0.17	2.85	1.40
XFINK	9.03	9.34	0.96	-0.65	2.22	23.59*
XGIDA	10.29	10.61	1.33	-0.75	2.53	25.92*
XGMYO	10.16	10.36	0.48	-0.84	2.39	28.66*
XHOLD	10.07	10.41	1.01	-1.14	3.59	57.46*
XILTM	9.78	10.06	0.66	-1.10	2.97	41.85*
XKAGT	9.76	10.16	0.97	-1.14	3.26	54.47*
XKMYA	9.81	10.03	1.02	-0.62	2.75	16.61*
XMANA	10.04	10.38	1.37	-0.53	2.06	20.76*
XMESY	10.13	10.31	1.16	-0.66	2.81	18.61*
XSGRT	10.79	11.42	1.34	-0.92	2.84	35.11*
XSPOR	10.80	10.81	0.43	0.07	2.97	0.13
XTAST	10.14	10.70	1.15	-0.96	2.73	38.80*
XTCRT	10.26	10.35	1.31	-0.40	2.30	11.56*
XTEKS	8.72	8.65	0.80	-0.41	2.43	10.32*
XTRZM	8.41	8.58	0.62	-0.73	2.74	22.99*
XULAS	9.58	9.37	1.19	-0.05	2.04	9.72*

*, **, *** indicates significance levels for 1%, 5% and 10% respectively

testing normality, unit root tests are applied in the next step. As can be seen from the related literature, unit root test is one of the tests that are frequently used to determine the market efficiency. However, Ng-Perron (2001) unit root test provides more consistent results in the series which have small number of observations in comparison to other unit root tests. In this context, the stationarity and therefore the weak form efficiency of the sub-sector indices are tested by NG-Perron (2001) unit root test and results are presented at Table 2.

According to Ng-Perron (2001) chart values for the model with constant for 10% MZa -5,70; MZt -1,62; MSB 0,275; MPT 5,48; for the model with constant and trend 10% MZa -14,20; MZt -2,62; MSB 0,19; MPT 6,67'. *** indicates significance level of 10%.

According to NG-Perron (2001) unit root test results Real Estate Invest Trusts sub-sector index is stationary in constant model, and Tourism and Transportation sub-sector index is stationary in constant and trend model. In other words, all of the indices except Real Estate Invest Trusts, Tourism and Transportation are weak form efficient. However, traditional unit root tests assume that series have linear structure. This situation can cause misleading results if the series are not linear. Also, although it is found sufficient to determine only the linearity structure in most of the studies on market efficiency, it is necessary to deepen the analyzes in order to obtain more realistic results. Therefore, in the next step Harvey linearity test is applied to the BIST sub-sector indices, and results are shown at Table 3.

Critical values are 9.21 for 1%, 5,99 for 5% and 4.61 for 10%. *, **, *** indicates significance levels for 1%, 5% and 10% respectively.

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Table 2. Ng-Perron Unit Root Test Results

	Constant				Constant + Trend			
	MZa	**MZt**	**MSB**	**MPT**	**MZa**	**MZt**	**MSB**	**MPT**
XBANK	0.66	0.94	1.43	125.3	-1.89	-0.83	0.44	39.3
XELKT	-0.17	-0.11	0.65	26.92	-5.25	-1.62	0.31	17.4
XFINK	0.98	1.13	1.16	90.92	-9.84	-2.21	0.22	9.32
XGIDA	0.86	1.80	2.10	275.4	-0.56	-0.30	0.53	61.9
XGMYO	-6.07***	-1.65***	0.27***	4.32***	-10.6	-2.30	0.22	8.62
XHOLD	0.63	0.74	1.18	87.80	-3.45	-1.24	0.36	25.1
XILTM	-2.12	-0.88	0.42	10.34	-6.90	-1.86	0.27	13.2
XKAGT	0.84	1.40	1.67	176.04	-1.53	-0.78	0.51	50.4
XKMYA	1.13	1.65	1.47	146.30	-4.12	-1.41	0.34	21.9
XMANA	1.21	1.98	1.64	183.76	-6.10	-1.72	0.28	14.9
XMESY	0.93	1.15	1.24	102.17	-5.77	-1.67	0.29	15.7
XSGRT	0.76	1.07	1.40	124.59	-2.91	-1.11	0.38	28.7
XSPOR	-0.69	-0.41	0.59	20.68	-4.82	-1.54	0.32	18.8
XTAST	0.63	0.86	1.37	115.68	-2.68	-1.01	0.38	29.4
XTCRT	1.00	1.41	1.42	133.30	-5.79	-1.64	0.28	15.6
XTEKS	1.26	1.47	1.17	98.31	-12.9	-2.54	0.20	7.08
XTRZM	-0.77	-0.41	0.53	17.54	-22.9**	-3.38**	0.15**	4.01*
XULAS	1.12	1.41	1.26	109.2	-17.7**	-2.96**	0.17***	5.22**

It is seen from Table 3 that Bank, Real Estate Invest Trusts, Holding & Investments, Telecommunication, Wood, Paper and Printing, Insurance, Tourism and Transportation indices have not linear structure. These results show that the sub-sectors included in Services and Financials sectors are generally not linear. But Electricity, Leasing and Factoring, Food and Beverage, Chemicals, Petrol and Plastic, Basic Materials, Metal Products Machinery, Sports, Non-Metal Mineral Product, Wholesale and Retail Trade and Textile and Leather sub-sectors are linear. However, when the global and national events, which occurred in the mentioned period, are considered it is thought that it will be more realistic to apply tests that show regard to structural breaks. In this context, Kapetanios unit root test is applied to the linear series on the basis of the model with constant and trend, and results are given at Table 4.

Table 4 indicates that Electricity, Leasing and Factoring, Food and Beverage, Basic Materials and Wholesale and Retail Trade sub-sector indices are stationary when the structural breaks are considered. In other words, these indices are not weak form efficient. Results also show that the external shocks which affect Electricity, Leasing and Factoring, Food and Beverage, Basic Materials and Wholesale and Retail Trade sub-sectors are temporary. On the other hand, according to the Kapetanios unit root test results Chemicals, Petrol and Plastic, Metal Products Machinery, Sports, Non-Metal Mineral Product and Textile and Leather sub-sector indices are weak form efficient. The structural break dates generally indicate to the global and regional financial shocks such as 1997 Asian Financial Crisis, 1998; Russian Financial Crisis, 2008; Global Crisis, 2009; Greek and European Debt Crisis; and FED and European Central Bank (ECB) decisions. Also, it is determined that the social and political events, which have global effects, such as Second Gulf War, Russia – Ukraine gas disputes, Russo – Georgian War and 2009

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Table 3. Linearity Test Results

	Harvey Test Statistic	w_s	w_u	λ
XBANK	9.559*	4.249	10.317	0.875
XELKT	4.411	9.387	0.025	0.532
XFINK	1.075	1.205	1.070	0.960
XGIDA	2.062	0.118	2.205	0.932
XGMYO	4.627***	9.741	4.211	0.925
XHOLD	8.492**	2.322	9.612	0.846
XILTM	11.13*	9.250	11.175	0.977
XKAGT	9.156**	0.000	9.989	0.917
XKMYA	0.560	4.665	0.288	0.938
XMANA	1.610	2.824	1.576	0.952
XMESY	1.656	1.522	1.663	0.952
XSGRT	7.177**	1.813	7.626	0.923
XSPOR	0.098	0.131	0.091	0.832
XTAST	0.434	0.674	0.416	0.930
XTCRT	1.354	7.867	1.013	0.950
XTEKS	2.998	1.625	3.030	0.977
XTRZM	6.614**	4.919	6.779	0.911
XULAS	18.57*	1.371	18.880	0.982

flu pandemic cause structural changes in some of the sectors. Besides, results show that some of the country-based events affect the efficiency structure of some of the sectors. For example, it is determined that 1999 İzmit earthquake caused structural breaks in Food & Beverage and Basic Materials sub-sectors, 1999 Düzce earthquake caused structural breaks in Leasing & Factoring sub-sector and 2011 Turkish sports corruption scandal caused structural breaks in Sports sub-sector.

Table 4. Kapetanios Unit Root Test Results

	Test Statistic	Break Dates					First Difference
XELKT	-8.179***	2000M01	2001M10	2006M03	2009M12	2013M05	-18.315*
XFINK	-8.503**	1999M11	2002M01	2005M06	2007M12	2012M04	-15.750*
XGIDA	-8.059***	1998M08	1999M09	2004M02	2008M01	2013M02	-21.307*
XKMYA	-6.334	1997M06	1999M02	2008M08	2011M08	-	-16.992*
XMANA	-9.136*	1998M08	1999M10	2001M12	2004M07	2008M08	-16.950*
XMESY	-6.826	1997M08	1999M02	2007M12	2009M03	-	-14.970*
XSPOR	-6.615	2009M03	2010M08	2011M06	2014M09	2015M03	-9.9989*
XTAST	-7.966	1998M07	2002M01	2002M12	2007M10	2010M08	-15.240*
XTCRT	-8.133***	1999M12	2000M11	2005M08	2009M11	2012M10	-17.033*
XTEKS	-7.227	1997M09	1999M07	2008M08	2010M09	-	-13.954*

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In the next step of the study, KSS and Rolling KSS unit root tests are applied to the sub-sector indices which are determined as nonlinear by Harvey et al. (2008) linearity test. In both KSS and rolling KSS unit root tests maximum lag length is calculated as “15” for Bank, Holding & Investments, Wood, Paper & Printing, Insurance, Tourism and Transportation sub-sectors and “14” for Real Estate Invest Trusts and Telecommunication sub-sectors on the basis of formula $p_{max} = \left[12 \left(\frac{T}{100} \right)^{\frac{1}{4}} \right]$ that is stated by Schwert (1989). The optimal lag length is determined according to the t-significance procedure. On the other hand, Bank, Holding and Investments, Wood, Paper and Printing, Insurance, Tourism and Transportation sub-sectors are detrended and demeaned, and Real Estate Invest Trusts and Telecommunication sub-sectors are demeaned. The results of KSS test which is applied to the whole period is presented at Table 5.

Numbers in parentheses show the optimal lag lengths. Critical value for Case 2 (Demeaned model) at 10% $-$ 2.66 and for Case 3 (Demeaned and detrended model) at 10% $-$ 3.13.

According to KSS unit root test results only Bank, Telecommunication and Tourism sub-sectors do not have unit root. In other words, it is concluded that the aforementioned sub-sectors are not weak form efficient, but Real Estate Investment Trusts, Holding & Investments, Wood, Paper & Printing, Insurance and Transportation sub-sectors are weak form efficient. But it is not also realistic to assume that market efficiency is constant or does not change over the time. Besides internal factors, the market efficiency may change due to factors such as globalization, which is the research topic of study. In this context, in the final step rolling KSS unit root test is applied to the series which are determined as nonlinear by Harvey et al. (2008) linearity test and results are presented at Figure 1.

As can be seen from Figure 1 that the most important finding gained from the rolling KSS unit root test is that the weak form efficiency of Bank, Real Estate Invest Trusts, Holding & Investments, Telecommunication, Wood, Paper & Printing, Insurance, Tourism and Transportation sub-sectors change over the time. Results also indicate that the events occurred in the analysis period affected the weak form efficiency structure of the indices. For example, it is seen that announcements of FED and ECB had effects on Holding & Investments, Wood, Paper & Printing, Insurance and Transportation sub-sectors. The global and regional crises such as Subprime mortgage crisis, Greek and European Debt Crisis had

Table 5. KSS Unit Root Test Results

	KSS Statistic	Analysis Period
XBANK	- 4.118* (1)	1997M01 – 2017M09
XGMYO	- 2.477 (6)	2000M01 – 2017M09
XHOLD	- 2.668 (1)	1997M01 – 2017M09
XILTM	- 2.717*** (8)	2000M08 – 2017M09
XKAGT	- 2.419 (14)	1997M01 – 2017M09
XSGRT	- 2.812 (15)	1997M01 – 2017M09
XTRZM	- 3.333*** (10)	1997M01 – 2017M09
XULAS	- 2.940 (13)	1997M01 – 2017M09

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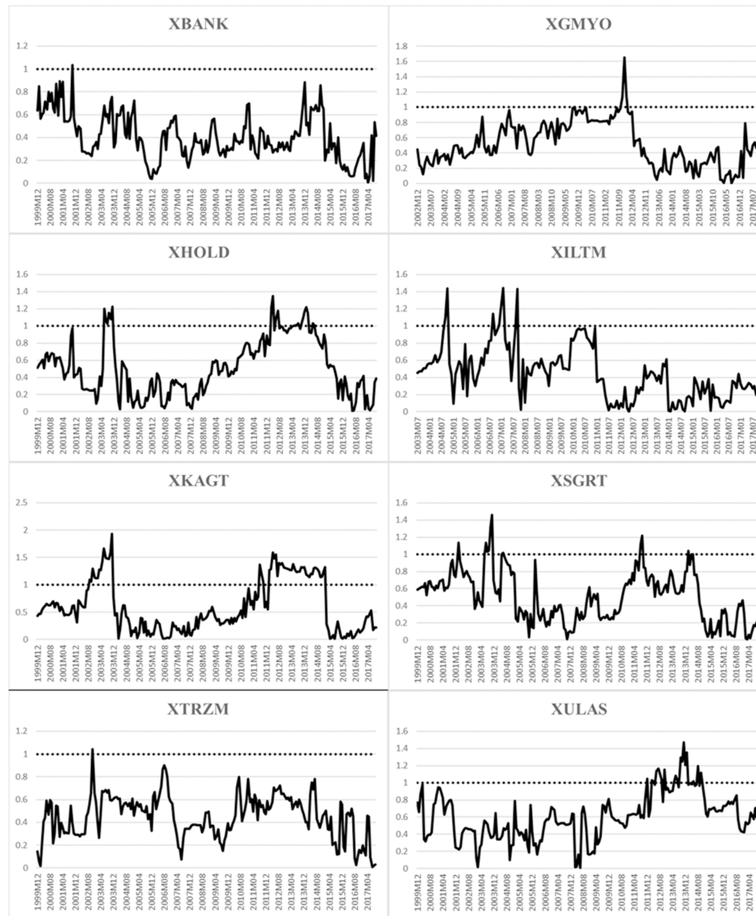
Figure 1. Rolling KSS Unit Root Test Results



effects on Real Estate Invest Trusts and Telecommunication sub-sectors. Consequently, results show that the global scale events affect the weak form efficiency of the indices in different durations. In Table 6 the summarized results of rolling KSS unit root tests are given on the basis of market efficiency.

Table 6 shows that indices are generally weak form efficient through long periods. When the analysis period is considered as whole, this situation indicates to the effect of market making decisions. On the other hand, it is determined that weak form efficiency is broken in Bank and Tourism indices for 1 month, in Real Estate Invest Trusts index for 4 months and Telecommunication index for 7 months. Wood, Paper & Printing index is not weak form efficient for 52 months. The results reveal that the investors who considers the market efficiency and BIST sub-sector indices should especially evaluate the global risk factors in buy and sell decisions.

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Table 6. Summary of The Rolling KSS Unit Root Test Results

	Total Number of Subsamples	Number of Nonlinear Subsamples	Number of Nonstationary Subsamples	Percentage of Weak Form Efficiency
XBANK	214	1	213	99.53%
XGMYO	214	4	174	97.75%
XHOLD	214	21	193	90.19%
XILTM	214	7	164	95.91%
XKAGT	214	54	160	74.77%
XSGRT	214	12	202	94.39%
XTRZM	214	1	213	99.53%
XULAS	214	19	195	91.12%

SOLUTIONS AND RECOMMENDATIONS

The research determined that structural breaks in the market being considered for investment and linearity structure are affective on weak form efficiency. However, investors have differing levels of financial knowledge and econometric analysis skills. Therefore, especially the unexperienced, investors need to follow principle level research reports issued by professionals and institutions. On the other hand, the research findings show that weak form market efficiency is time varying. Also, the factors causing changes were found to be global shocks rather than country specific shocks. Hence, it can be concluded, that investors acting according to market efficiency should take into consideration global developments, reports and data before deciding when to buy or sell assets they are considering including in their portfolios.

FUTURE RESEARCH DIRECTIONS

In further studies the time-varying efficiency of different markets can be analyzed by rolling KSS unit root test. Also, investigation of the variance breaks in the volatility of the analyzed markets can help policy makers in constructing economic policies. On the other hand, time-varying weak form efficiency of the linear series can have tested in order to gain useful information that can be used in portfolio and risk management decisions.

CONCLUSION

In the study the hypothesis if weak form efficiency of BIST sub-sector indices change over the time or not is tested. In order to test this hypothesis, the study used innovative technique besides traditional methods that are frequently used in financial literature. The research questions were replied depending on the applied test which are “Harvey Linearity test” and “Ng-Perron, Kapetanios, KSS and Rolling KSS” unit root tests.

Firstly, the linearity of the BIST sub-sector indices were investigated. It is determined by Harvey Linearity test that “Electricity, Leasing & Factoring, Food & Beverage, Chemicals, Petrol & Plastic,

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Basic Materials, Metal Products Machinery, Sports, Non-Metal Mineral Product, Wholesale & Retail Trade and Textile & Leather" sub-sector indices are linear but ""Bank, Real Estate Invest Trusts, Holding & Investments, Telecommunication, Wood, Paper & Printing, Insurance, Tourism and Transportation" are nonlinear. In the next step, Kapetanios unit root tests was applied to the linear sub-sector indices. By the Kapetanios unit root tests, which considers the structural breaks, it was concluded differently from the Ng-Perron unit root tests that "Chemicals, Petrol & Plastic, Metal Products Machinery, Sports, Non-Metal Mineral Product and Textile & Leather" sub-sector indices are weak form efficient, and "Electricity, Leasing and Factoring, Food and Beverage, Basic Materials and Wholesale and Retail Trade" are not weak form efficient. The results of Kapetanios unit root tests also indicate that global and regional financial shocks such as 1997 Asian Financial Crisis, 1998 Russian Financial Crisis, 2008 Global Crisis, 2009 Greek and European Debt Crisis and announcements of FED and European Central Bank (ECB) affect the weak form efficiency of linear indices. Besides, the events which have global effects, such as Gulf War, Russia – Ukraine gas disputes, Russo – Georgian War and 2009 flu pandemic cause structural changes in some of the sectors. In the next step, KSS unit roots was applied to the whole period and it was seen that only "Real Estate Investment Trusts, Holding and Investments, Wood, Paper and Printing, Insurance and Transportation" sub-sector indices are weak form efficient.

Finally, rolling KSS unit root test was applied to the nonlinear indices under the assumption that market efficiency can change over the time. Depending on the tests it was determined that the weak form efficiency of "bank, real estate invest trusts, holding and investments, telecommunication, wood, paper and printing, insurance, tourism and transportation" sub-sector indices were changed over the time. However, these indices are generally weak form efficient through long periods. It is seen that the weak form efficiency is broken for 1 observation for "Bank and Tourism" indices, 4 observations for "Real Estate Invest Trusts" index and 7 observations for "Telecommunication" index. This result indicates that market making decisions affect the efficiency structure of many of the sub-sectors. When all the results considered together, it can be said that the investors who considers the market efficiency and BIST sub-sector indices should especially evaluate the global risk factors in buy and sell decisions.

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KEY TERMS AND DEFINITIONS

Global Financial Crises: Financial crisis that simultaneously effect multiple countries and financial markets.

Random Walk Theory: States that changes in prices of assets are independent of each other, in other words prices form randomly and are unpredictable.

Research Report: Reports, generally prepared by an investment analyst, offering important information to investors about specific currency, commodity, stock or industry.

Sector Indices: Show performance of stocks grouped according to specific industries.

Structural Breaks: Refer to sudden changes in a times series and if ignored, can cause economic forecasts to be misleading.

Time-Varying Efficiency: Refers to fluctuations in efficiency during different time intervals.

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Chapter 28
Strategic Alliances:
A Conceptual Model of Health Tourism

Nilufer Vatansever Toylan
Kirklareli University, Turkey

ABSTRACT

This chapter is aimed at examining the concept of alliances, which has been used as a strategy in the service industry, with a theoretical perspective and how it can be applied to the tourism industry. Specifically, alliances in health tourism are examined by an integrated model proposed for Turkey. Therefore, a literature review has been presented in this chapter. From this, a model created for strategic alliances in the health tourism industry is adapted from the literature. From explaining strategic collaborations in a general context, strategic alliances in tourism industry, examples about Health Tourism Alliances from the world and from Turkey specifically, a model is proposed for Health Tourism Alliances. Lastly, some theoretical and practical implications and suggestions for future studies are presented.

INTRODUCTION

At the beginning of the 20th century, Drucker (1995) underlined that the greatest change that allowed the growth of relations in the form of management comes from partnership, rather than ownership. Accordingly, the concept of creating interorganizational relationships such as collaborations, strategic alliances and partnerships has become important to businesses, and interorganizational relations have begun to be witnessed in almost all sections of business life. Today, businesses have realized that they could supply perspectives, know-how and skills by partnering with other enterprises (Baloh, Jha, & Awazu, 2008). There are several terms used for inter-organisational relationships e.g. the terms collaboration, collaboration and partnerships are often used as synonyms. Collaboration is a process of joint decision making among key stakeholders to resolve planning problems. Collaborations include many sectors (Zhang & Zhang, 2006), from transportation to telecommunications, from logistics to tourism and agriculture, formed such as using the same distribution channel, merging research and development units, creating joint ventures, creating market share and common knowledge base (Koçel, 2005: 427). It is also known

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that the enterprises have concluded agreements in more than one kind and different types of agreements within the same sector (Çakınberk, 2007, pp. 190-191).

Why while some of the businesses create collaborations, the others not? It is possible to reply this question with the strategic direction of the collaborations. The right basis for entering into collaborations is to have appropriate payment structures of the businesses (Axelrod, 1984; Parkhe, 1993). In other words, if the collaboration costs a high price, business can continue by itself. Thus, this view causes businesses to take a non-holistic structure (Pisano & Teece, 1989) by emphasizing the role of their interests and the nature of cost structure in the partnership (Axelrod, 1984). Therefore, there are a number of theories explaining why businesses collaborate. The forms and issues of collaboration have been supported the theoretical basis of concepts such as the resource-based view (RBV), transaction cost economies (TCE), strategic preference, shareholder theory, learning theory and theoretical theory (Barringer & Harrison, 2000).

Voigt and Laing (2014) explain with shareholder theory that collaboration evolves over time and can take many forms: relatively simple or complex; temporary or long lasting; and with or without formal rules. There are two types collaboration: specialised collaboration, where the same type of tourism firms collaborate (i.e. accommodations) and complementary collaboration, where organizations collaborate across different sectors (i.e. indigenous, health/wellness). Collaboration is recognised is a key factor for destination competitiveness, innovation and long-term survival (Pechlaner, Hedorfer, & Tödter, 2008). Many studies of tourism collaborations focus on collaboration at national or international level, but destination level is also an important phenomenon and what kind of influence it has e.g. what are the benefits and challenges, how the collaboration works at destination level and who are the stakeholders involved.

As Smith (2015) quotes from many other studies, researchers have emphasised the importance of collaborations such as networks and clusters in health tourism destination development. Stronger collaboration at local and regional level amongst various health tourism providers will become a crucial prerequisite for the future development of health tourism destinations. Therefore, a strategic approach to destination management is very important handled together with a resource-based approach. Researchers recommend that a Health Tourism Cluster should aim for "relational strategic destination management" (Voigt & Pforr, 2014). For example, India's national medical tourism initiatives are supported by hospital management teams, airline executives, private equity funds, venture capitalists, information technology firms, and tourism agencies. All these initiatives are collaborated to support a destination as a health tourism destination in a strategic basis.

This chapter focuses on collaborations in health tourism by creating an integrated strategic alliance model but especially within sectors between healthcare services and tourism services. The study has been conducted to illustrate some of the complementary resources, processes, success, or effectiveness of collaborations and the practices of establishing and managing them. In this context, a systematic model has been created based on the resource-based view but not separated from the strategic choice view. This conceptual paper proposes that the performance enhancing effects of resource and capability synergies is further improved when alliance partners establish effective structural designs and develop successful relational dynamics. The combination of resources and capabilities directly affect alliance performance, as does the successful implementation of an alliance structure and positive relational dynamics between the firms.

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STRATEGIC ALLIANCES

In the management literature, there are many different definitions and therefore different opinions about the concept of strategic alliance. The point of view of this study is that by adopting a general approach to the concept of strategic alliance, the term "alliance" is intended to cover collaboration, alliance or business partnership words, which are the counterpart in our language. Because, it is observed that very little room has been allocated in domestic and foreign literature in this subject which is taken up in the context of health tourism. Upon examining the business management and strategic management literature in Turkey in particular, it is observed that the terms strategic alliance or strategic partnership are used very frequently. These concepts are a general observation that has been exhibited by the important scientists who have contributed to the literature on strategic management. For example, according to Ülgen and Mirze (2007), although the term partnership suggests a capital share ownership among businesses, there is no question of capital share ownership, since there is no new enterprise or business in this collaboration. Therefore, authors find it more appropriate to use the more common strategic partnership term in the literature, even though the strategic alliance seems to be more appropriate instead of strategic partnership.

Upon scanning the relevant foreign literature, it is observed that the terms international corporate connection, hybrid structure, strategic partnership, joint venture and strategic alliance are used as the counterpart of the term alliance (Culpan, 1993). For example, Kanter (1994) uses the terms alliance and cooperative arrangements in the same sense. In addition, mergers and acquisitions that are not possible to be a real alliance may sometimes be under the term "alliance". In Turkish literature, it has been found that words such as partnership and collaboration are used in the same sense in addition to this term.

In strategy literature, businesses are seeking an answer to the question of whether "purchasing or manufacturing a long-lasting product or service" would be more advantageous. Recently, many studies are encountered regarding how alliance may be an important alternative to purchasing, disposing of or internal improvement in a way that can answer that question (Gulati & Lawrance, 2000; Piskorski, & Nohria, 1999).

The definition of strategic alliances often manifests collaboration agreements between two or more independent firms that provide mutual utilization of resources, information and skills and give the businesses competitive advantage (Semercioz & Çakınberk, 2003). A characteristically unique definition of strategic alliances manifests as an arrangement of two or more businesses that establish an exchange relationship but do not have a partnership (Lowensberg, 2010). In addition to these typical and generic descriptions, there are also studies that simply define strategic alliances as collaborations that are important to partners and help them to achieve their goals (Das & Teng, 2000, Mockler, Dologite, & Carnevali, 1997; Stiles, 1998). It can be said that the most important distinction in these definitions is that there is no share ownership among the organizations. Ohmae (1989) already suggests having no share owner ownership as a prerequisite for the formation of alliance co-operation.

There are many different theories that explain the formation of inter-company relations. One of the most comprehensive studies of these theories is research by Barringer and Harrison (2000). It is emphasized that these theories will be effective in explaining the complex relationships when the interorganizational relations are taken together in isolation rather than in a singular manner. In addition to this, there are also studies in which the explanation of strategic alliances suggests that a theory can be more

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explanatory than other theories in situations that vary according to internalization and market conditions (Das & Teng, 2000). Therefore, this study describes the theory of resource dependence required by the health tourism industry and the study model by considering strategic choice approach which reveals an important direction of strategic alliances.

STRATEGIC ALLIANCES IN TOURISM INDUSTRY

It is observed that hotel businesses are in very diverse alliance relationships (marketing alliance, supplier alliance, joint venture, etc.) with their own competitors, other businesses within the tourism industry (travel agency, tour operator, airline, transportation, food and beverage, etc.) and businesses in other industries (hospital, construction, textile, various suppliers) (Pansiri, 2005). However, it is possible to see that the accommodation businesses have made various alliance agreements with the enterprises in the sectors other than tourism. This is the case in the horizontal and vertical alliance relations that tourism businesses have realized. In other words, the alliances formed between the business and the businesses in the same sector and businesses with the same resources specify vertical alliances, while the alliances made with businesses in different sectors allowing the emergence of innovation and the complementing businesses with different resources (Yasuda & Iijima, 2005). Due to the characteristic of being a unified product thanks to the nature of tourism, alliances within the same sector or with other sectors are regarded as a must. However, tourism sub-sections such as health, gastronomy, nature and sports provide enrichment of tourist products through collaboration and that sub-sections are offered together as a complementary product.

Collaborative relationships between businesses in the tourism industry are an important element in business performance, competitive advantage and businesses' survival. Therefore, accommodation businesses must be in constant collaboration with travel agencies, car rental companies, airlines and other hotel businesses (Medina-Munoz & Garcõa-Falcon, 1999). However, it is possible to see that the accommodation businesses have made various alliance agreements with the enterprises in the sectors other than tourism. This is the case in the horizontal and vertical alliance relations that tourism businesses have realized. For example, in line with the agreements of the hotels with the travel agency, the travel agencies work like a branch of the hotel enterprises and joint campaigns are being carried out. In addition, the "agency desks" located within the hotels provide travel agencies with the opportunity to work as a support unit for the hotel. They also guide tourists coming to the hotels by taking them to city tours. On the other hand, in Istanbul, hotel businesses are providing a complementary service for guiding tourists coming to shopping tourism thanks to the collaborations they have done with the fashioners.

Another example for the vertical alliances formed with an accommodation establishment within the tourism industry and another establishment in another industry is the alliance between Econo Lodge and Procter & Gamble. Thinking that cleaning would evoke quality and hygiene for the customer, Econo Lodge made an agreement to use Mr. Clean, one of the cleaning products of P&G, in the hotels, presenting a successful example of partnership (Pırnar, 2006). The fact that the world-famous Schneider Electric and Hilton have also signed a strategic alliance agreement, and even the presence of a senior executive of Schneider Electric, who takes care of hotels agreed for a strategic alliance, is an indication of the importance of the collaboration of the hotels with other sector businesses (Gaines, 2013). Meanwhile, THY customers at the Best Western hotel chain and THY's Best Western hotel in more than four countries in 80 countries will earn 500 miles for their shop & miles cards at each stay and will be entitled

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to a 10% discount on their accommodation each time (Turizm Gazetesi, 2016). It has been fruitful for both parties, both in terms of profitability and customer satisfaction, that Marriott hotels, and then Hyatt hotels, to cooperate with Starbucks.

Moreover, it is observed over the last years in our country that the hotel establishments within the same group but providing services in different concepts act together due to various reasons such as benefiting from the scale economies or complementary physical resources and thus, provide customer satisfaction (For instance, Novotel-Ibis Hotel, Hilton-Hilton by Hampton). The strategic collaboration agreement between Özyeğin University and The Marmara Hotel also stands out as an important example of collaboration in the branch of education. A similar collaboration took place between Cornell University in New York and Hilton Worldwide as well. It is therefore possible to see that hotel businesses exhibit various alliances with their competitors, other businesses in the tourism industry and businesses in other industries. It is possible to say that in the health field of the hotel enterprises, they work together by receiving consultancy services from various SPA centers and brands (Çırağan Kempinski Otel-Sanitas SPA) and thus there is an important collaboration that both parties have gained. Similarly, travel agencies that are not many numbers in the field of medical tourism serve health tourism by establishing collaborations. For example, the brokerage agency named Medical Tourism City states that the tourists who come to the country in the framework of health tourism are working in collaboration with the travel agents at the points of airline ticket, accommodation and guidance services (Turizm Güncel, 2016).

Health tourism, which is one of the sub-divisions of tourism, is different from other tourism types, worthy of being examined within the scope of collaboration with various specialties and sectoral structure of health tourism. Of course, there are different aims between the health industry and the tourism industry with a collaboration that can be done within the health industry. First of all, a collaboration among the health organizations will benefit the community better than the health needs of the community and can reduce the duplication of services (Carson, Carson, & Roe, 1995; Kavuncubaşı & Yıldırım, 2010).

What is important here is the trust of the two parties towards each other, their shared vision (Tsai & Ghoshal, 1998) and their strategic intentions. If the parties can communicate clearly and transfer their alliance strategies correctly, the risk of opportunism will be limited. One of the most important reasons for opportunism is that strategic intentions and collaboration strategies do not really coalesce. If one of the parties continues to cooperate with one another in the absence of a strategic intention, then there is a secret matter, which increases the risk of opportunism.

There are some important elements to create a strategic alliance model. Strategic intent, commitment, shared vision and mutual trust are considered important elements as well as the capabilities and resources businesses should possess. In particular, strategic intent of companies (Hamal & Prahalad, 1989) is important in the study to emphasize as a key antecedent of entering into an alliance and concentrate on the alliance formation process. These components will be presented in the model proposal section of the study.

STRATEGIC ALLIANCES IN HEALTH TOURISM

Examples of strategic collaborations within the scope of health tourism are provided in this part of the study. These examples may be related to medical tourism, spa-wellness tourism or tourism for the aged-disabled, which are the sub-branches of health tourism, as well as being oriented towards health tourism in general. All of these are considered to point to health tourism. This is because the main subject mat-

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ter and purpose of this study is not to discuss health tourism or to distinguish its sub-branches, but to examine and explain strategic partnerships in the context of health tourism. Of course, medical tourism and wellness tourism are different types, but thinking of them under the health tourism umbrella does not change the general characteristics and strategic direction of collaboration that health tourism has. This is due to the fact that collaborations or clusters of health, wellness or medical tourism are generally networks comprised of a combination of leading hospitals, spas, clinics, providers, hotels, tourism operators and/or government officials cooperating together to advocate their services and location to health tourists (Medical Tourism Association, 2018).

Health tourism is a type of tourism in which international tourist movements are frequently observed. Therefore, there are a wide range of common marketing products for potential health tourists to take part in international health tourism activities. These are the types of diagnoses and treatments such as aesthetic surgical operations, aesthetic or surgical dental treatments, heart surgery, orthopedic surgery, gastric surgery, reproductive and gender treatments, organ transplantations, eye operations, diagnostic research and general health checks (Baynazoğlu & Serçe; 2013). Among the reasons for tourists to choose hospitals that offer these services are high technology, better quality service, long wait times in their own countries, privacy and relatively low cost (Ehrbeck, Guevara, & Mango, 2008). Furthermore, it is important for quality service to health tourist to coordinate with joint effort of the governments, destination marketers, medical organizations, health insurance providers, medical travel agencies, hotels, and other industry players (Wendt, 2012).

It is necessary to implement various strategies in order for the health organizations be able to sustain its existence and to provide competitive advantage. These are orientation strategies, harmonization strategies, market entry strategies, position strategies and operational strategies, respectively. Within this context, it is known that health organizations have formed strategic collaborations, alliances and joint ventures with sub-strategies such as seizure, licensing and capital investment under the strategies of entering the market (Kavuncubaşı & Yıldırım, 2010; Duncan, Ginter, & Swayne, 1995). Healthcare organizations cooperate with other organizations in entering new markets and expanding service delivery channels. In the health industry, inter-organizational collaboration (horizontal and vertical integration) arises in a variety of forms ranging from gentleman agreements to organizational acquisitions. It is possible to examine the reasons for the collaboration among health organizations under the titles of resource dependency and strategic choice. The main objective of the inter-organizational collaboration is to reduce the adverse effects of environmental factors on health care organizations. It is assumed that the environment has two important effects: Uncertainty and resource dependence. From them, Peripheral Uncertainty is the managers' lack of knowledge when deciding on peripheral factors, while resource dependence is the inability of an organization to assess the peripheral resources need to sustain its activities or being dependent on other organizations in terms of these resources. However, healthcare organizations cooperate with other organizations in entering new markets and expanding service delivery channels (Kavuncubaşı & Yıldırım, 2010).

Private healthcare organizations in our country in particular have gained an important share in health tourism in order to enter new markets. Therefore, a wide variety of stakeholders are involved in health tourism. Basically, these are medical tourism organizations, health tourism consultancy companies, medical service centers or hospitals (branch hospitals, dental treatment centers, in vitro fertilization centers, cancer centers etc.), rehabilitation centers, health, beauty and wellness services centers. Along with these organizations, due to the integrated product structure of health tourism; insurance companies, travel agencies, transport and airline operators, accommodation operators, food and beverage operators,

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shopping operators, entertainment enterprises and other complementary tourism enterprises (transfer, consultancy, guidance etc.) are also included in this network. The collaboration of these stakeholders in health tourism operations operating in different fields affects the satisfaction of health tourists and the success of health tourism (Altındiş, 2015). For instance, patients who aren't familiar with specific medical facilities abroad can coordinate their treatment through medical travel intermediaries. Many intermediaries use the Internet to recruit patients. These services work like specialized travel agents. Clients of MedRetreat, for example, can choose from a menu of 183 medical procedures from seven different countries: India, Thailand, Malaysia, Brazil, Argentina, Turkey and South Africa (Herrick, 2007).

Health tourism, which includes various categories such as medical tourism, thermal tourism, SPA and wellness, elderly tourism, disabled tourism and sports tourism, show a 20% fixed annual increase in demand due to its demand potential (Carter, 2009). For the tourists looking for healthcare services through the sources abroad, the medical tourism is turning into a more and more popular option in addition to the opportunity that they also can visit the tourist attractions of this country (Connell, 2013). Collaborations in health tourism is generally observed as mutual agreements between countries (Fang, 2018) or national and public sector and private sector. For instance, prior to the large investors' interest in Costa Rica for cosmetic surgery tourism, plastic surgeons collaborated with hotel owners to accept clients from the US (Ackerman, 2010). However, health care organizations can differentiate their agreements with different countries to support health tourism with airline operators, accommodation operators or travel agencies (Smith, 2015). The international growth of medical tourism was shaped by the collaboration and strategic partnerships, which enabled the companies in the US to obtain shares of the market for medical travel in other countries. As it is stated before local, state, and national governments, destination marketers, medical organizations, trade associations, health insurance providers, medical travel agencies, hotels, and other industry players have collaborated for the coordination of medical travel (Wendt, 2012). Therefore, these elements absolutely necessitate the collaboration and joint action of the related parties in health tourism such kind of collaborations require a network as in Figure 1.

A medical tourism product is a medical service which includes a leisure component. Despite being a challenge, coordinating the resources and services of the health-care and tourism industries is often conducted at the government level. Upon deciding to undergo a medical procedure in a foreign country, the person requires tourism services in addition to healthcare. It is mandatory to make detailed travel arrangements (such as obtaining visas, airline tickets, etc.), ensure that the doctor is available and to plan other medical arrangements such as recuperation services. Collaboration between the two sectors is required for all these (Chacko, 2006). The opportunities for both the hospitality and health-care industries continue to increase along with the popularity and reputation of medical tourism (DeMicco, 2017). Since it already offers similar services, a medical tourism service would not be inappropriate for a luxury hotel. For example, following his/her surgery, the patient could spend an extended period of time recuperating in a luxury hotel. The hotel would need to offer good follow-up care in coordination with a medical expert, along with specially designed rooms. In terms of health and medical services, safety has utmost importance and is a primary concern for those traveling to another country to obtain such services. Hence, a well-established partnership between medical organizations and hotels is necessary to meet the needs of medical tourists (Heung, Kucukusta, & Song, 2011).

It is possible for some services considered as different services to be undertaken by a single organization in terms of health tourism. For example, some studies indicate that several niche products are available in Austria. Some hospitals cooperate with hotels for postpartum care. The Crowne Plaza Coogee Beach hotel has merged with the Prince of Wales private hospital and carries out this care with

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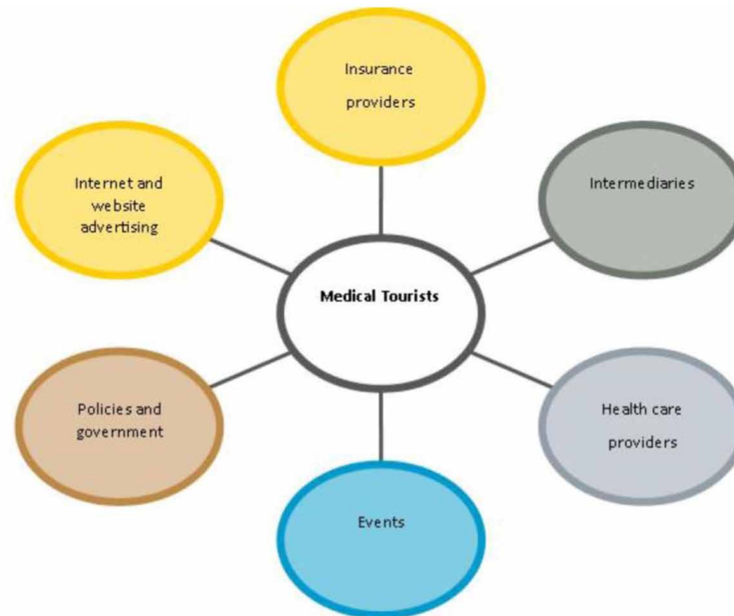
Figure 1. Players in Health Tourism Industry
Source: HOPE - European Hospital and Healthcare Federation, 2015



a program called Little Luxuries. Similarly, the Cairns birth clinic has developed a package for medical tourists, building a self-contained accommodation facility, but also offering local accommodation in hotels such as Rydges and Shangri-La (Carter, 2009).

In this context, the following options are generally emphasized:

- The arrangement of shopping tours in various places from market place to luxury shopping places
- Arrangement of city sightseeing tours
- Organizing cultural and touristic tours such as theater, opera, cinema, etc.

In addition to these, the following options are also addressed:

- Spa-wellness program
- Fitness program
- Program and counseling to get rid of excess weight
- Carrying out hobbies such as painting, writing, etc.
- Other events

The hospital must have a professional liaison network to support this issue when needed. The arrangements that can be made for travel before and during travel can be regarded in this context. Because all these operations and processes do not have to be done by the International Patient Unit (IPU). On the contrary, it is better to do these things by others. Throughout the world, hospitals benefit from a wide network of contacts offering services such as transfer services, city tours, non-medical services after treatment (Ministry of Health, 2012, p. 41).

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There is a protocol for post-treatment rotation for international patients and this protocol is also used in practice. Depending on the condition of recovery and the services being set up, all agreed travel and transfer arrangements of the hospital/IPU must be done, if necessary, in collaboration with third parties. All of these aids are prepared in advance and put into practice when the patient is discharged (Ministry of Health, 2012, p. 45). Here is an agreement that deals with both the health and tourism industries, but the collaboration that the healthcare industry has done with an insurance company.

Medical tourism is somewhat different from other types of tourism. Because travel motivation in this area manifests first as health, visits and general tourism activities appear as the next impulses. Medical tourism means that one person travels to another country from his / her own country for therapeutic purposes. Since people take long-time overseas trips for medical, dental and surgical operations, accessible and cost-efficient trips make this touristic product more easily accessible for the tourists. As a result, the motivation of medical tourists is different from other tourist types. Their needs are very evident and can change depending on medical conditions. Instead of the existing expertise and facilities, they have a high level of confidence in hotels, destination experiences and activities. Thus, they consider their medical needs for travel decisions (Tresidder, 2011). Therefore, medical tourism, which has an important place in health tourism, needs various forms and examples of collaboration from the health industry as well as the tourism industry due to its characteristics.

In a study conducted in Norway on the cosmetic sector, which we can evaluate in another subcategory of the healthcare sector, wellness spa; the creation of medical cosmetic products has been revealed with co-branding. It has long been an area of study for the study of spa tourism, which is common in Nordic countries, and it is emphasized that there are many strategic ways to improve the competitiveness and brands of spa and health tourism businesses and the development of cosmetic alliances may be one of them as a result of the work. One of the assumptions in the study is that it is the partners who are vital to the creation of the experiences of cosmetic manufacturers and distributors in wellness facilities. Cosmetic producers are involved in the renewal of goods and services as well as in the marketing and branding process. Thus, the terms co-creation and co-branding are applied in researching the nature of collaborative structures (Hjaleger & Konu, 2010). Pırnar and İçöz (2010) conducted a SWOT analysis in their study to determine İzmir's health tourism potential. As a result of this analysis, the authors made some suggestions for collaboration. They pointed out the importance of providing opportunities for strategic alliances or alliances between international health providers, insurance groups, tour operators and local hospitals. Thus, the importance of inter-regional collaboration has been emphasized in order to increase efficiency by taking advantage of economies of scale. They also emphasize the need to cooperate with foreign insurance companies. In another study, the collaborations on health tourism are explained with the Budapest example. A good example of co-operation between spa and private clinics is presented in the study, which suggests that luxury hotels with quality spas in Budapest and in border cities allow clinics to set up operations and rehabilitation centers (Sziva, 2010).

In applications such as dentistry, surgical operations and eye surgery, efforts are being made to ensure flawless and professional services as well as lasting modern qualities. In order to have industrialized medical tourism and permanent patient flow, the best application of uninterrupted services and important solutions like pre-travel services, follow-up services and travel insurance should be widespread. In addition, it is necessary to participate in accreditation systems for target markets. IFCs have played a major role in this area, raising awareness and controlling quality. It is important for health tourism to get what it deserves from the national tourist attraction and to benefit from the development fund as well as to cooperate with the tourism industry. The public sector is confronted with a number of challenging

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questions that the government has decided not to support medical tourism, yet it does not have a vital importance. The "partner hospital" model cannot be implemented without government support. However, medical tourism can be increased in the areas of outpatient surgery and rehabilitation with the support of hospitals and help services. The differentiation strategy is importance in intense competition. Therefore, the use of traditional healing methods as in Asia may be a good example. In addition, collaboration with tourist service providers that include therapist practices can be a solution for making specialized, high quality methods and products based on healing waters and medical plants (Sziva, 2010). Another study in Hungary emphasizes that the tourism industry and the healthcare industry will be able to overcome the changing market with further collaboration. Relocating dental tourism in the form of high quality-high price can be evaluated as a visit to Hungary and dental treatment for patients looking for high quality applications. This new product will need to cooperate with more tourism suppliers beyond just the use of clinics and agencies as it used to do (Zoltan & Maggi, 2010).

Several justifications listed above and some relations available in the health tourism necessitate the establishment of a scientific but applicable model for health tourism formation. Therefore, in the next section, we present a model that incorporates the strategic perspective and the relational dimension required to sustain collaboration between businesses, in order to integrate the resources of the two industries.

A CONCEPTUAL MODEL ON CREATING STRATEGIC ALLIANCE IN HEALTH TOURISM INDUSTRY

The study aims to provide a conceptual model for strategic alliances in health tourism industry based on the relationships between the partner firm combination of resources and capabilities, and, the relational dynamics with the financial and non-financial performance. The need for external resources, depending on the resource-based categories of tangibles, intangibles, and capabilities respectively ascertains whether these resources will most probably be sought via a strategic alliance strategy or via a merger/acquisition (Yarbrough & Powers, 2006).

It is argued by Das and Teng (2000) that the structural preferences of partner firms are determined by their resource portfolios. They argue that, due to the significant extent to which partners are exposed to, equity joint ventures are applicable for both tangible and property-based and intangible and knowledge-based resources and capabilities. In non-equity alliances, despite the fact that unilateral contract-based alliances are only helpful for property-based resources and bilateral contract-based alliances are suitable for transferring knowledge (Das & Teng, 2000). In general, implementation of a suitable alliance structure reflecting the resources and capabilities of the partner, will provide the alliance with the most helpful medium to achieve the collective objectives of partners. On the other hand, some dynamics are necessary to maintain this collaboration. Meanwhile, maintaining this collaboration requires several dynamics. A high degree of trust, commitment, knowledge sharing and high levels of balanced interdependence generally defines healthy, productive, functional, cooperative inter-firm relationships are typically characterized (Mohr & Sengupta, 2002). Fuller-Love and Thomas (2004) argue that many researchers focus on the fact that a significant mutual trust between the establishments is required for collaborations, alliances and network formations in order to maintain their relationships. It can be stated that trust within the organization (as an organizational phenomenon that occurs between the employees and their directors or between colleagues themselves) and inter-organizational trust (synergy, joint relations, flexible networks and strategic alliances can be listed instead of economic hierarchy and efficiency) are important

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instruments behind the organizational outputs such as organizational interdependence, productivity and innovation (Semercióz, Hassan, & Vatansever, 2007).

The combination of resources and capabilities as well as the successful implementation of an alliance structure and positive relational dynamics between the firms directly affect alliance performance, (Freer, 2002). However, the accumulation of common objectives and intentions of an organization's members creates the shared vision. Shared vision is an important condition for the occurrence of several inter-organizational resource exchanges (Tsai & Ghoshal, 1998).

Rothkegel et al. (2006) accentuate the significance of trust, commitment and control in their study where they investigate the strategic alliance between SMEs and big companies. In their study conducted on 600 travel agencies, tour operators and retailers, Pansiri (2008) investigated the subject matters of compatibility, feasibility, interdependence, control and trust as the important determinant of continuity of a strategic alliance. The study concludes that harmony, commitment, talent and trust positively affect the satisfaction regarding the performance of the partnership. The studies conducted on strategic alliances can be classified under several headings. Based on the classification, the researches with respect to the strategic alliances may be grouped as how and why they have been founded, critical success factors, reasons of failure, creating information, skill and technology transfer among the partners and choice of partner (Evans, 2001). Kauser and Shaw (2004) conclude that behavior constituents including commitment, communication and mutual dependency are important constituents for the success international strategic alliances' success. A common observation among all these studies is the fact that they address the performance of the relationships among the alliances, establishment success or several relationships such as such as building mutually trust, commitment, shared vision and transferring various information. Additionally, Grant and Baden-Fuller (2004) argue that open innovation in partnerships is a type of knowledge sharing where partners can access the knowledge and skills of each other, and the sum of this knowledge is used in exploit complementarities. It is said that partnering with difficult business partners leads to "more synergies and intake of complementary, multidisciplinary knowledge, which contributes to the production and sales of innovative products" (Beers & Zand, 2014).

A great diversity of providers of health services is observed within the medical tourism industry, notably commercial, for-profit entities. It is commonly argued that providers from leading medical destinations come from developing countries. However, they are not the only ones; the providers differentiate from solo practices, through large medical facilities, to groups of hospitals that are included in the corporations. They partner with other industry actors such as travel agents, brokers, insurance companies, in addition to other hospitals and universities (often foreign ones with good reputation). Gupta (2004) argues that it is possible to define the medical tourism as the procurement of cost-effective medical care to patients in collaboration with the tourism industry. The private sector generally facilitates this process; although both private and public sectors are involved in the tourism industry. Medical tourists also exploit the opportunity to visit a popular travel destination by traveling abroad to have surgery or other medical treatment. Therefore, it is possible to say that the system of health tourism is simply composed of two stages. In the first stage, medical services are the priority, and in the second stage comprise of the travel services, which is essential. The health services include services such as gathering medical documents of the patient, arrangement of the pre-consultations, availability to talk with doctor before arrival, appointment with doctor, arrangement and follow up with the treatment plan, arrangement of the post consultations, availability of 24-hour medical consulting during the stay. Travel services include services such as flight tickets, 3, 4 or 5-star hotel alternatives, airport hotel – airport

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transfers, hotel–hospital–hotel transfers, guiding services, city tours, translation services, medical tourism insurance, 7/24 concierge service.

Therefore, it is essential to establish a collaboration between these elements, which depends on complementing resources and capabilities. In such a partnership, the partnership between hotels and healthcare offers benefits to both sides. The healthcare-oriented hotels allow hospitals to move patients out of hospital units' sooner, freeing up capacity for other patients. Hotels receive another source of demand which may account for a significant portion of room nights sold, and which may come at a higher average daily rate. Thus, parties protect the interest of each other. Hotels may be exposed to less cyclical demand fluctuations as well (Wendt, 2012).

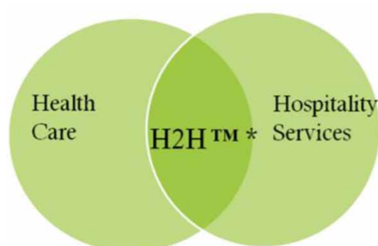
Pointing out the fact that health service and tourism service is connected, the authors argue that it is possible to obtain customer satisfaction by these two sectors achieving the interaction between H2H "Hotels to Healthcare" accommodation services and health service (Demicco & Poorani, 2015).

As pointed out by Simon Hudson, an expert in tourism marketing, "some individual hospitals and regions in the United States are beginning to be in place for medical tourism destinations, but few stakeholders have recognized the opportunities in the gap between hotels and healthcare" (2011). He suggests future research based on a model including the "Hotels to Healthcare" (H2H) part of medical tourism, an overlap between hotels and resorts and the medical facilities themselves, often concluded with provision of an integrated medical tourism facility. Rooms that feel more like a hotel than a hospital room are being built in an increasing number of hospitals and health resorts that are geared towards medical tourism are building (Hudson, 2011).

A study on Medical Tourism Supply Chain includes upstream suppliers who procure the services/products for medical tourism (e.g., hotels, airlines, hospitals) and downstream suppliers who advocate and sell the products of medical tourism (e.g., travel agents, intermediaries). Therefore, information sharing among these suppliers is vital for facilitating the industry. Timely and accurate information sharing can also increase the performance of an organization, since it can provide business and reduce operating errors (Lee & Fernando, 2015). Therefore, for health tourism, a multi-stakeholder structure may be proposed, in which permanent collaborations with structurally different types of resources are provided. Because of the services such as accommodation, catering, guide, activity, which are mediated by the travel agencies, a multi-network structure can be created by including the spa-wellness applications which will serve the health needs of the tourists and even accelerate the treatment. Thus, these dynamics move more controllably rather than acting differently.

A study on medical tourism supply chain emphasized that the health and tourism industry is in collaboration. With respect to medical tourism and the supply chain, the medical tourism supply chain can

Figure 2. H2H Business Model
**H2HTM: Hospitality Bridging Healthcare (DeMicco & Poorani)*



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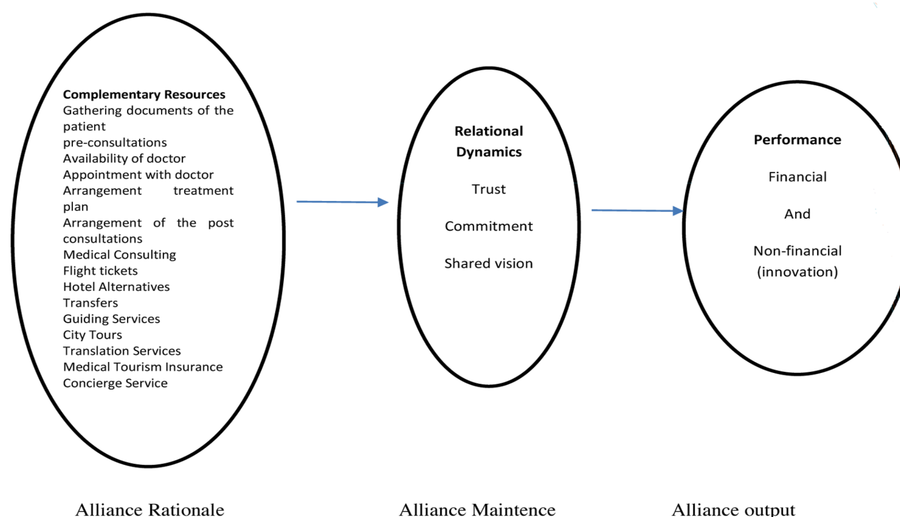
be described as a supply chain that consists of various members of the medical tourism industry that collaborate with each other to perform a complete medical and holiday service to the user. Among the various members who came together in this scope are accommodation, chemistry and pharmaceuticals, hospital, transportation, and insurance, which are operating business to business. This system is akin to so-called H2H system, which not only covers these two sectors but also covers sources, funds, distributes medical services, manages associated information, and finances from manufacturers to medical service delivery points. Therefore, health tourism industry can collaborate to present a full medical and holiday service to the user, thereby serving health-care communities, reducing supply chain costs, and increasing efficiencies among suppliers (Lee & Fernando, 2015).

The authors in this chapter have built on previous frameworks and models to provide a new model of health tourism to guide future research, in the content of system model process of an integrated health tourism operation, a hybrid organizational form that incorporates features of both a hospital and a hotel.

SOLUTIONS AND RECOMMENDATIONS

In the study, a model of collaboration for health tourism is suggested. In particular, the synergy and joint relations that can be formed by combining two different sectors on resource-based view will enable the businesses to exhibit a successful performance in health tourism. Some of the relationship dynamics that will affect the performance of strategic alliances are important during the maintenance of this collaboration. Given the flexible nature of strategic alliances and all of these relationships, it is inevitable that combining resources of businesses that have different resources and capabilities will have a competitive advantage. Moreover, when considering that businesses allied just for innovativeness, to continue competitive in the international arena, it is recommended this kind of management structures to businesses operating in the health sector in Turkey.

Figure 3. An integrative model of strategic alliance in health tourism industry



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FUTURE RESEARCH DIRECTIONS

Although there is not much attention in the literature by the researchers about collaborations in health tourism, it is often interested in practice. Therefore, the study is important to draw attention to do much more scientific researches to present theoretical and practical implications. It needs more scientific researches by scholars that study about health tourism. It is suggested for future research the model in the chapter is tested by the researches with some empricial methods both quality and quantity. Thus the proposed model can be expanded.

CONCLUSION

In recent years, very little evidence has been provided about the health tourism industry especially by means of strategic alliance formation on resource-based perspective. However, medical tourism has shown an increasing interest in a developing and lucrative tourism market. Therefore, considering the shortage of academic literature in this area this study offers a comprehensive theoretical framework for future research. In this context, a comprehensive analysis of the existing literature is reviewed. And a conceptual model of the health tourism industry has been developed by resource-based view, combining resources of healthcare and hospitality industry on relational dynamics and performance output (financial and nonfinancial) by means of strategic alliance perspective.

Therefore, a significant contribution of this research is the identification of the relational dynamics to maintenance the health tourism collaborations. By examining dynamics that facilitate collaboration between parties expands research in the field of health tourism. Many practices are explained in the study from the health tourism industry by means of health tourism alliances both cover healthcare services and hospitality services. These practices will light on scholars and practitioners.

It has been indicated that, in the emerging knowledge-based society, the capacity of sharing knowledge within and between tourism firms imparts to their innovativeness (Zach & Hill, 2017) with respect to changes in market offerings-product, service, and experience-(Hjalager, 2010), and advancements in building customer relationship (Ottenbacher & Gnoth, 2005). Therefore, understanding the possibility for competing firms in local proximity, with the identical market and similar or complementary offerings, is vital to collaborate through tourism strategic alliances and as an important input, this offers passage to external knowledge sources to the innovation actions of tourism firms and thus brings more tourists to a destination for the collective benefit of all stakeholders. As Canada, New Brunswick Tourism, Heritage and Culture Minister John Ames stated in an interview as one of the strategies focuses about tourism growth is “Advance Partnership Investment and Alignment – align partnership investment to foster product innovation, entrepreneurship and market development.” (http://www2.gnb.ca).

As stated by Heung et al. (2011), strategic coordination between healthcare and tourism is crucial. Therefore, combining the medical and tourism industries has tremendous economic and social impacts, particularly in developing countries. Studies in this area will be of great interest to scholars and practitioners in both sectors.

The explanations and examples in the literature section of the study include different health tourism components, countries and organizations. Hospitals and clinics play a vital role in health tourism and provide medical treatment with trained and certified physicians and equipment. Tourists seek for lower cost but quality services. The hoteliers and travel agencies work together to influence the decision to

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buy medical tourists/business partners. A travel agency provides services from the airport to a medical tourist until returning home. Therefore, the function of the travel agency has been highly intertwined with the other partners of medical tourism. In the current global economic environment, collaboration with various members of the medical tourism industry increases productivity and working alone is costlier than working together. Thus, a network of collaboration has become important for stakeholders involved in health tourism.

This study provides practitioners with a better understanding of the benefits that collaboration in the health tourism industry can bring. With the proposed theoretical framework, practitioners can build and manage their operational practices better to create a better cooperative relationship with medical tourism business partners. Practitioners can also use strategic modeling to align strategic collaborations, partnerships or networks with business strategy and to better perform existing resources and technology. In addition, they can try various ways to improve overall performance for local customers and international patients and to increase organizational profitability and competitive power, as well as the medical tourism industry.

In addition, some businesses and sectors that are part of health tourism are still unaware of this. The examples, models and proposals presented in this study will create awareness for them. A better understanding of health tourism concepts and collaboration can be provided if they comply with the recommendation contained in this study. In an increasingly competitive environment for businesses, it is important to realize such a situation and to understand the importance of this sector and also to explain this to businesses that do not recognize despite being in the business. Thus, firms will be able to better assess the impact of firm performance through their work model and recommendations.

Efficient and effective management of strategic alliances ensures the emergence both financial and non-financial performance. Practitioners will benefit by implementing lessons learned here in order to increase the effectiveness of the collaboration strategy. For example, they can create and manage operational applications better and develop better business relationships with their partners. Thus, they make better use of existing resources and technology to improve the performance of local and international clients and services offered to patients. Continuous innovations emerging thanks to this increase the success of businesses against their competitors and make them permanent in the industry. Operational costs for Turkey can be minimized and the value of the market can be increased.

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KEY TERMS AND DEFINITIONS

H2H: Hospitality bridging Healthcare, achieving the interaction between "Hotels to Health Care" accommodation services and health service.

Health Tourism: It is a type of tourism which contains sub categories such as medical tourism, thermal tourism, SPA and wellness, elderly tourism, disabled tourism and sports tourism.

Resource Based View: Firms combine their complementary resources in order to enable the businesses to exhibit a successful performance for health tourism alliance.

Strategic Alliances: An arrangement of two or more businesses that establish an exchange of resources, relationships and help partners to achieve their goals.

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Chapter 29
ESG and Financial Performance:
Impact of Environmental, Social, and Governance Issues on Corporate Performance

Aslı Aybars
Marmara University, Turkey

Levent Ataünal
Freelance Academic, Turkey

Ali Osman Gürbüz
Istanbul Commerce University, Turkey

ABSTRACT

Non-financial information such as environmental, social, governance (ESG) issues is becoming as much important as financial data. This study investigated the empirical relationship between Thomson Reuters Environmental Social Governance (ESG) Combined Score and performance of S&P 500 firms with eleven years of data from between 2006 and 2016. The study confirmed unidirectional positive and significant relation between ESG Combined Score and ROA, suggesting that improvements in ESG score have positive impact on operating performance of the firm. Although simultaneous equation estimations by means of instrumental variables (IV) employing two-stage least squares (2SLS) and three-stage least squares (3SLS) confirmed the significant positive relation between ESG Combined Score and operational profitability (ROA); contrarily, Tobin's Q seemed to affect ESG score rather than the ESG score inducing Tobin's Q. Higher Tobin's Q seems to lead to a lower ESG score. In other words, firms with higher growth potential as denoted by a higher Tobin's Q, are found to be less sensitive to ESG issues.

INTRODUCTION

The emergence of the recent financial crisis has drawn attention to the companies' attitudes towards risk, ethics, degree of accountability, and capability of managing their stakeholders (Galbreath, 2013). Meanwhile transparency gained importance, investors started to demand timely and accurate informa-

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tion not only in financial but also in non-financial terms. Non-financial information started affecting investment decisions almost as much as financial data. Listed firms that incorporate ESG activities into their strategic agenda and effectively communicate those activities to the investors are offering a more comprehensive picture for corporate valuation. Especially major institutional investors are now taking account of ESG factors in their investment process.

As stated by Daub (2007), the end of 1980s is when first environmental reports were issued, specifically by multinational companies. Socially responsible investing (SRI) which is defined by Kinder (2005) as 'the incorporation of the investor's social or ethical criteria in the investment decision-making process' underscored investors' demand for environmental, social, and governance (ESG) information. As Kinder (2005) expressed, SRI emerged in the UK, Canada, and Australia in the mid-1980s following its appearance in the US in the late 1960s.

Today, different tags are used for investments that consider ESG issues, socially responsible investing to sustainable investing. Some investors practice socially responsible investing merely by avoiding those "sinful" industries like tobacco, gambling, firearms, etc. However, sustainable investing is a more sophisticated approach to investing where risk, return and opportunities are identified with a thorough analysis of ESG issues. Accordingly, many firms are currently utilizing their own resources to generate voluntary ESG reports besides the mandatory ones to better demonstrate their both financial and non-financial performance in line with demand of the investors especially in mature markets.

A thorough measurement of a corporation's performance and its risks can only be achieved by the evaluation of extra-financial reporting in addition to financial results. Assessment of environmental, social, and governance scores are vital for gauging the sustainability of a company's performance and survival (Achim & Borlea, 2015). However, environmental, social, governance issues are expected to affect financial performance in the longer term. Short-term investors are less likely to consider ESG issues in their investment process.

As investors and stakeholders became more aware about non-financial reporting and cared not only about financial results but also societal expectations, resource allocation has also become more complex. Firms are forced to allocate their resources to environmental and social issues as well investing for better financial results and growth. Accordingly, the influence of corporate social performance (CSP) on corporate financial results has been widely probed and discussed (Waddock & Graves, 1997). Su et al. (2016) emphasized that whereas academicians of management documented a positive link between CSR (Corporate Social Responsibility) and financial performance of the firm, those of economics and finance revealed a negative or non-significant relationship. Some leading studies in finance and management literature have exhibited positive results with respect to the influence of CSR on performance and value (Orlitzky, Schmidt, & Rynes, 2003; Margolis & Walsh, 2003). However, negative relationship has also been reported in some other studies (Brammer, Brooks, & Pavelin, 2005). Aupperle et al. (1985) verified a vague link between social responsibility and profitability together with the finding that the intensity of social orientation did not influence the differences in performance. These controversial results can be attributed to the differences in the quantification and measurement of CSR and the selected measures of financial or economic performance.

It is difficult to integrate ESG issues into quantitative models. Because ESG disclosure by companies are generally vague and unstandardized. Besides, ESG issues are expected to impact financial performance in the long term whereas many investment decisions are relatively short-term.

This study attempts to add to literature by investigating the link between ESG combined score taken as the measure for being socially responsible and financial performance with the large dataset of S&P

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500 firms. Our proxy for measuring environmental, social, and governance issues includes the controversies, meaning that bad news are also taken into consideration. This study not only probes the impact of ESG practices on performance but also tries to reveal the issue of endogeneity and takes causality into account. This perspective reveals whether better financial performance leads to better ESG practices or it is other way around.

The study is structured as follows: next section provides literature review of the studies conducted for evaluating the link between CSR and firms' performance. Then, methodology chosen for the study is explained together with the variables, sample, and research design. Subsequent section is dedicated to the results of the study and reveals robustness checks. Lastly, concluding remarks are provided.

BACKGROUND

The theoretical background of corporate social responsibility has been marked by the opposing views of the distinguished economists Milton Friedman and R. Edward Freeman, who proposed the stakeholder theory. Friedman (1970) strongly argued that people, not businesses, have social responsibilities and that the only responsibility of the business is to increase profits. Executives should not be spending others' money for social interest since that would result in an unjustified reduction in shareholders' return. Friedman fully supported the idea that firm's fundamental goal is to "maximize shareholders wealth". Contrarily, Freeman (1984) sustained that executives can manage organizations more effectively by considering the interests of all stakeholders for long-term success and maximization of value. In other words, firm should also aim to maximize benefits of employees, customers, suppliers, and creditors besides shareholders. This conjecture implicitly assumed a positive relationship between social and financial performance. According to good management theory, better financial performance occurs only by good management practice, which also involves engagement in social domains. Elkington (1998) focused on sustainability and maximization of economic, social, and environmental performance, the triple bottom line performance, leading to the maximization of value for all stakeholders. When the fourth performance dimension, governance dimension, is added, this leads into ESG scores which enable investors to comprehensively quantity the non-financial performance of the firm. Thus, financial results and ESG scores empower investors to evaluate performance of the firm in all dimensions.

Brooks and Oikonomou (2017) advised that the link between corporate social responsibility and various measures of financial performance were first evaluated in the 1970s despite significant limitations. The impact of ESG activities on performance indicators was not clear since it was not easy to identify whether the costs or benefits are higher. Besides, reliable information about environmental, social and governance activities should be efficiently provided to the market for the stock prices to be moved correctly (Manescu, 2011). As Statman (2006) puts forward, returns of portfolio investments based on socially responsible indexes are found to generally exceed those of S&P 500 Index. The managerial opportunism hypothesis, which was referred to in the study of Preston and O'Bannon (1997), stated that a negative link might result between financial and social performance since managers pursued their private goals as proposed by the Agency Theory. In the seminal study of Waddock and Graves (1997), the sign of the relationship between social and financial performance was hypothesized to be positive, negative or neutral underlining the controversial views on the topic. Their results supported the slack resources theory which entails that better prior financial performance leads to superior CSR activities. When firms perform better financially, obviously they have more resources (cash) to allocate to social

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or environmental activities. On the other hand, good management theory proposed that investment in social domains leads to better financial performance. According to this theory, firms should invest in social issues to improve their bottom line, not invest in those only when they have surplus funds remaining from their core activities.

Corporate social reporting and its impact on corporate financial performance (CFP) has been a topic of accounting and finance literature since the beginning of 1970s. Based on their study attempting to reveal the link between CSP-CFP, Schuler and Coding (2006) stated that the results of the empirical researches are equivocal. The opportunity costs associated with ESG issues prevent firms from spending their resources on these activities. On the contrary, the managers of the companies that invest in ESG activities develop certain skills that are transferable to better corporate actions. In other words, higher managerial efficiency or better management practice prompted by the involvement in ESG activities might overcome opportunity costs in most cases. Gunner et al. (2015) conducted a comprehensive review on previously issued studies and evaluated the findings of about 2200 studies by accounting for the results of 35 vote-count and 25 meta-analyses researches. The CSR – CFP relationship was found to be non-negative in approximately 90% of the studies. They concluded that, in order to align investors' interests and society's objectives, especially value enhancing ESG factors should be taken into consideration. Apparently, not all aspects of ESG activities have the same impact on corporate financial performance (CFP). Based on a review of academic and practitioner literatures, Peloza (2009) tried to evaluate and summarize the financial impact of CSP investments. Although majority of papers reviewed by Peloza documented a positive link between CSP and CFP, 22% reported neutral or mixed findings, and only 15% reported a negative relationship.

A recent study probed the CSR engagement behavior of "notorious" US firms with a dataset between 1991 and 2010. These 337 firms were selected from "sinful" industries, such as tobacco, alcohol, gaming, firearm, military, and nuclear power. The results showed that those "ill-famed" firms spent relatively more for publicizing their CSR activities to neutralize their negative image. However, these CSR-related advertising expenditures were found to increase idiosyncratic risk and deteriorate performance causing inconsistent firm valuation by investors (Oh, Bae, & Kim, 2017). Another study conducted on 988 US companies from nine different sectors delivered contradictory results to the sinful firms' case. Total stock returns are found to be improved and financial risk is reduced in firms investing in CSR (Blasi, Caporin, & Fontini, 2018). Of course, improved stock returns might either be caused by better financial performance or by positive perception of investors in the market.

Erragragui (2018) explored the relationship between CSP and cost of debt with a sample of 214 U.S firms. In his study, he attempted to verify whether governance and environmental issues impact firms' default and bankruptcy risk perception by creditors. It is shown that environmental concerns increased creditors' assessment of default risk. Surprisingly, he found no significant effect of corporate governance controversies on cost of debt. He interpreted this finding by the possible positive perception of a good CSR reporting which might have off set creditor's negative perception of governance controversies. Good CSR reporting is often used by controversial firms as a tool to manipulate other concerns.

Bocquet et al. (2017) emphasized that when evaluating the impact of CSR on performance, the mediating role of product and process innovations should be taken into account, since there exists a trade-off between investments in innovation and CSR initiatives. Accordingly, they concluded that whereas a responsive CSR strategy can hinder the propensity to engage in innovative activities, strategic CSR satisfies stakeholders' medium-term expectations by linking CSR and innovation leading to greater innovation and growth due to synergy effects.

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Tang et al. (2012) focused on the CSR engagement strategy while evaluating the link between CSR activities and financial performance. They emphasized the role of CSR details in maximizing the benefit obtained from CSR activities. They investigated how the pace, relatedness, consistency, and the internal or external orientation of the strategy; namely the strategic path, influenced performance (measured by ROA, return on assets) with a dataset set of 130 firms for the period between 1998 and 2007 by data extracted from Morgan Stanley Capital International (MSCI) ESG Indices and Compustat. The results showed that while inconsistent engagement in CSR destroyed financial performance, engagement in related areas of CSR improved financial results. Furthermore, the internal dimensions of CSR and slow implementation are also found to enhance financial performance. Thus, polishing operations with occasional CSR activities generally results in worse financial performance. Stakeholders are generally capable of differentiating genuine CSR activities from the activities involved only for the sake of public relations. They also suggested that an effective approach to CSR activities should start from internal dimensions, such as Governance, Diversity, and Employee Relations before expanding into 'external' dimensions such as Community, Environment, Human Rights, and Product. It is easier to succeed in internal dimensions than in external dimensions. Furthermore, skills developed during internal activities can be utilized in external CSR activities.

A recent study performed by Li et al. (2017) investigated whether improved ESG disclosure lead to higher firm value on a dataset comprising FTSE-350 firms during the period between 2004 and 2013. They also explored whether CEO power has any mediating role on this relationship. The results revealed that ESG disclosure is positively associated with firm value, because of improved transparency, accountability, and enhanced stakeholder trust. This link seems to get stronger with higher CEO power, implying that shareholders associate higher CEO power with greater commitment to ESG practice. A concurrent study investigated the impact of ESG scores on corporate financial performance while allowing for the linearity and nonlinearity of the relationship (Nollet, Filis, & Mitrokostas, 2016). The sub-components of ESG scores are utilized in another study with a dataset of S&P500 firms for the period between 2007 and 2011. The linear model adopted demonstrated no significant findings with respect to the influence of CSP on the selected measures of performance; namely ROA (Retun on Assets), ROC (Return on Capital), and market return. However, the nonlinear model provided evidence of a long-run positive influence with the impact being U-shaped only in the governance sub-component. This implies that investments in CSR are found to be rewarding only after a certain threshold level is reached. CSR is found to deteriorate CSP until this certain amount has been spent. With a causality perspective, Qui (2016) documented a lagged positive relationship between profitability and social disclosure on FTSE350 firms; however, this influence was not detected in the reverse direction. Furthermore, only social disclosures, not the environmental ones were found to interest investors, which was suggested by the finding that social scores positively influenced the market-based measure.

Based on a dataset of more than 3000 firms for the period between 1998 and 2012, Benlemlih and Bitar (2018) investigated whether involvement in CSR influenced investment efficiency. Findings demonstrated that investment efficiency was improved as non-financial information was provided to the firms' stakeholders resulting in a reduction in information asymmetry. Furthermore, CSR dimensions related to primary stakeholders were found to have a more prominent role in improving efficiency. Another study conducted by Crifo et al. (2015) provided evidence that firms' valuation; thus, the investment decision is affected by non-financial disclosures in that investors are found to be influenced by bad ESG disclosures more than good ones. Therefore, private equity financing is proven to be affected by ESG practices asymmetrically with the investors reacting more to unfavorable disclosures.

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An emerging market study based on ten Asian economies validated that institutional environments have a role on the mechanism by which CSR mitigates information asymmetries. The positive influence of CSR on performance is more strongly pronounced in markets with a low level of development and information diffusion. Without developed institutions, CSR activities have a role in making stakeholders aware of the qualifications of the firm (Su, Peng, Tan, & Cheung, 2016).

Earlier studies have been performed for analyzing the link between various measures of performance and socially responsible actions. Lioui and Sharma (2012) showed that ROA and Tobin's Q were negatively influenced by environmental CSR and stated that this finding was due to investors' perceiving these actions as potential costs. However, interacting R&D investments into the analysis revealed that environmental efforts had a positive influence on CFP due to improved efficiency. Based on an Australian study, construction companies were found to demonstrate better performance on the condition that they engage in non-financial reporting. However, most of the companies in the sample did not display sufficient amount of social disclosures, not satisfying the demand for transparency by institutional investors. A contemporaneous study performed on top 100 global sustainable companies revealed a bidirectional link between superior sustainability practices and financial performance in developed economies. While sustainability practices were found to lead to better financial performance, likewise, better financial performance was found to lead to more sustainable companies (Ameer & Othman, 2012).

On the other hand, ESG initiatives consume time and cash. The additional costs created by these initiatives are at least partially compensated by higher efficiency in operations or by some other means. Otherwise those companies involved in ESG activities would have been extinct, as these extra costs would make these firms less competitive against their rivals in the market.

This study investigates the potential causal link between ESG practices and performance and reviews prior studies on the subject. It provides additional insight on this issue by utilizing the ratings estimated by Thomson Reuters.

MAIN FOCUS OF THE CHAPTER

Issues, Controversies, Problems

The findings of extensive literature on ESG issues and financial performance are ambiguous especially because of limitations on the assessment of ESG activities and transparency of data. Determination of the ESG criteria is rather subjective. Gathering, evaluation and especially comparison of ESG data is also a laborious and costly effort. Besides, ESG information is part of non-financial reporting and firms' ESG disclosures tend to vary considerably. Firms' ESG data are not generally comparable. Missing consensus over the measurement methodology on ESG issues plays a significant role on divergent empirical results. Likewise, there is little consensus over the variables measuring financial performance. Researchers used market measures such as the stock market return as well as some accounting measures (ROA and ROE).

In this study, 'ESG combined score' developed by Thomson Reuters is used as the proxy for ESG performance. Thomson Reuters ESG Scores are claimed to be objectively measuring company's ESG performance. Thomson Reuters scores measure company's relative ESG performance and effectiveness across ten main areas, based on annual reports, company websites, NGO websites, stock exchange filings, CSR reports, and news sources. ESG Combined Score incorporates ESG news controversies, which

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substantially influence firms into the final rating. Final score is claimed to differentiate the transparent and non-transparent firms as well as firms publicizing more than executing. There is no one exhaustive list of ESG issues. Ten aspects that are measured to estimate ESG scores by Thomson Reuters's methodology are as follows:

- **Environmental Aspects:** Resource use, emissions, innovation;
- **Governance Aspects:** Management, shareholders, Corporate Social Responsibility (CSR) strategy;
- **Social Aspects:** Workforce, human rights, community, product responsibility.

Weight of each aspect in the final score is given below in Table 1. Management aspect accounts almost 1/5 of the final score as management's standpoint is the single most important factor that determines a corporation's overall ESG approach. Management score is determined with sub-categories of rating such as composition, diversity, independence, committees, and compensation.

Thus, Thomson Reuters 'ESG Combined Score' offers a comprehensive rating for the company's overall ESG performance by incorporating the impact of ESG controversies, which are obtained from the media sources. When companies were not involved in ESG controversies, ESG Combined Score is equal to ESG Score. Categories and description of possible controversies that affect combined score is given below.

- **Anti-Competition:** Number of controversies published in the media linked to anti-competitive behavior (e.g., antitrust and monopoly), price-fixing or kickbacks.
- **Business Ethics:** Number of controversies published in the media linked to business ethics in general, political contributions or bribery, and corruption.
- **Intellectual Property:** Number of controversies published in the media linked to patents and intellectual property infringements.
- **Critical Countries:** Number of controversies published in the media linked to activities in critical, undemocratic countries that do not respect fundamental human rights principles.

Table 1. Weight of Each ESG aspect in the final score

Main Pillar	ESG Aspect Measured	Weight in the Final Score
Environmental	Resource Use	11.0%
	Emissions	12.0%
	Innovation	11.0%
Social	Workforce	16.0%
	Human Rights	4.5%
	Community	8.0%
	Product Responsibility	7.0%
Governance	Management	19.0%
	Shareholders	7.0%
	CSR Strategy	4.5%

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- **Public Health:** Number of controversies published in the media linked to public health or industrial accidents harming the health and safety of third parties (non-employees and non-customers).
- **Tax Fraud:** Number of controversies published in the media linked to tax fraud, parallel imports or money laundering.
- **Child Labor:** Number of controversies published in the media linked to use of child labor issues.
- **Human Rights:** Number of controversies published in the media linked to human rights issues.
- **Management Compensation:** Number of controversies published in the media linked to high executive or board compensation.
- **Consumer:** Number of controversies published in the media linked to consumer complaints or dissatisfaction directly linked to the company's products or services.
- **Customer Health & Safety:** Number of controversies published in the media linked to customer health & safety.
- **Privacy:** Number of controversies published in the media linked to employee or customer privacy and integrity.
- **Product Access:** Number of controversies published in the media linked to product access.
- **Responsible Marketing:** Number of controversies published in the media linked to the company's marketing practices, such as over-marketing of unhealthy food to vulnerable consumers.
- **Responsible Research and Development:** Number of controversies published in the media linked to responsible R&D.
- **Environmental:** Number of controversies related to the environmental impact of the company's operations on natural resources or local communities.
- **Accounting:** Number of controversies published in the media linked to aggressive or non-transparent accounting issues.
- **Insider Dealings:** Number of controversies published in the media linked to insider dealings and other share price manipulations.
- **Shareholder Rights:** Number of controversies linked to shareholder rights infringements published in the media.
- **Diversity and Opportunity:** Number of controversies published in the media linked to workforce diversity and opportunity (e.g., wages, promotion, discrimination and harassment).
- **Employee Health & Safety:** Number of controversies published in the media linked to workforce health and safety.
- **Wages or Working Condition:** Number of controversies published in the media linked to the company's relations with employees or relating to wages or wage disputes.
- **Management Departures:** Has an important executive management team member or a key team member announced a voluntary departure (other than for retirement) or been ousted?

To measure the financial and market performance of firms, in line with prior researches, ROA, and Tobin's Q are used as dependent variables of the study. ROA measure is based on accounting performance and Tobin's Q is a measure determined by market performance of the share. The efficient market theory conjectures that prices reflect all available information. Thus; all relevant information, financial or non-financial, theoretically, may change price of the stock. ESG information although non-financial theoretically has a potential to influence value of the share.

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SOLUTIONS AND RECOMMENDATIONS

To investigate the relationship between ESG score and firm performance, eleven years (2006 to 2016) of S&P 500 (Standard and Poor's 500) firms' data is used. However, due to lack of consecutive data especially on ESG scores, the final sample comprised 466 firms of S&P500. Financial data are collected via Datastream of Thomson Reuters.

To explore the relationship between ESG scores and performances of firms, following hypotheses are tested in this study.

H1: There is a positive and significant relationship between ESG Combined Score and financial performance measured by ROA.

H2: There is a positive and significant relationship between ESG Combined score and growth potential perception of the market measured by Tobin's Q.

To test these hypotheses, some control variables, which are stated to be influencing performance of the firms, are also included in the regression equations. Size, leverage, and tangibility are chosen as control variables in the equations.

First hypothesis (H1) is tested with the following equation:

$$ROA_{it} = \beta_0 + \beta_1 ESG_Combined_{it} + \beta_2 Log\left(Assets\right)_{it} + \beta_3 Debt_Assets_{it} + \beta_4 Tangibility_{it} + \varepsilon_{it} \quad (1)$$

Where

$$ROA_{it} = return\,on\,assets\,of\,the\,firm\,i\,in\,year\,t .$$

$$ESG_Combined_{it} = ESG\,variable\,which\,includes\,controversies\,of\,the\,firm\,i\,in\,year\,t .$$

$$Log\left(Assets\right)_{it} = Proxy\,for\,firm\,size, natural\,logarithm\,of\,total\,assets\,for\,the\,firm\,i\,in\,year\,t; .$$

$$Debt_Assets_{it} = Proxy\,for\,leverage, total\,debt\,divided\,by\,total\,assets\,for\,the\,firm\,i\,in\,year\,t; .$$

$$\text{Tangibility}_{\text{it}} = \text{Proxy for tangibility, total fixed assets divided by total assets for the firm i in year t;} \quad .$$

Second hypothesis (H2) is tested with the following equation:

$$Tobins_Q_{it} = \beta_0 + \beta_1 ESG_Combined_{it} + \beta_2 Log\left(Assets\right)_{it} + \beta_3 Debt_Assets_{it} + \beta_4 Tangibility_{it} + \varepsilon_{it} \quad . \quad (2)$$

Tobins_Q is estimated as follows:

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$$Tobins_Q_{it} = \frac{Book\,Value\,of\,Total\,Liabilities_{it} + Market\,Value\,of\,Equity_{it}}{Book\,Value\,of\,Total\,Assets_{it}}.$$

The correlations between the variables employed in the regressions are given in Table 2. As expected, the control variables are negatively correlated with the chosen dependent variables of regressions. On the other hand, multicollinearity seems not to be a problem which significantly distorts the results of the panel regressions. The highest correlation disclosed among independent variables is 0.326 between TANGIBILITY and DEBT_ASSETS.

The results of regressions in which ROA is the dependent variable (Equation 1) are given in Table 3.

Generalized least square (GLS) estimation with fixed firm effects emerges as the appropriate model to analyze the data at hand. Breusch and Pagan test (Breusch & Pagan, 1980) implies the presence of firm specific random or fixed effects in the ordinary least square estimations. The error terms of the model are heteroscedastic, not independently, identically distributed. Consequently, ordinary least squares (OLS) is not efficient for analyzing the data at hand. Furthermore, chi-square test (Hausman, 1978), which tests the orthogonality of random effects and the explanatory variables, submits that random effects are correlated with the explanatory variables (Table 3). So, fixed effects generalized least square (GLS)

Table 2. Correlations between the Variables

	ROA	TOBINS_Q	ESG_COMBINED	LOG(ASSETS)	DEBT_ASSETS	TANGIBILITY
ROA	1.000000	0.466244	0.049869	-0.230687	-0.163354	-0.093986
TOBINS_Q	0.466244	1.000000	-0.003233	-0.438973	-0.072518	-0.146804
ESG_COMBINED	0.049869	-0.003233	1.000000	0.004285	0.050149	0.111247
LOG(ASSETS)	-0.230687	-0.438973	0.004285	1.000000	-0.026277	-0.028533
DEBT_ASSETS	-0.163354	-0.072518	0.050149	-0.026277	1.000000	0.325808
TANGIBILITY	-0.093986	-0.146804	0.111247	-0.028533	0.325808	1.000000

Table 3. The impact of ESG Combined Score on ROA

	OLS		EGLS With Firm Random Effects		EGLS With Firm Fixed effects	
Constant	0.353707	***	0.354760	***	0.309088	***
ESG_COMBINED	0.000278	***	0.000261	***	0.000110	***
LOG(ASSETS)	-0.016419	***	-0.015990	***	-0.012482	***
DEBT_ASSETS	-0.046464	***	-0.074590	***	-0.065038	***
TANGIBILITY	-0.024216	***	-0.025243	***	-0.052965	***
Adjusted R^2	0.111964		0.049588		0.901537	
F-Statistic	1514457	***	63.25783	***	93.98274	***
Breusch Pagan LM Test	4234.981	***				
Hausman χ^2 Test			22.151627	***		

Level of Significance: ***p < 0.01; **p < 0.05; *p < 0.1

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estimation with cross-section weights appears to be the best fitting estimator for the sample. Nevertheless, in all estimations the coefficient of ESG combined score is positive and highly significant in the determination of ROA, meaning that firms with higher ESG combined score generally have higher return on assets (ROA). The results also suggest that size, financial leverage, and tangibility have negative influence on ROA. The signs of the coefficients of control variables largely correspond with findings of previous researchers. Smaller firms generally have higher profitability. Higher tangibility leads into higher assets size which eventually reduces the return on assets.

When we repeat the regressions with the dependent variable, TOBINS_Q (Equation 2), in line with the previous estimations, again fixed effects model emerges as the efficient estimator (Table 4). Ordinary least squares (OLS) is not efficient because of heteroscedasticity problem. Random effects appear to be correlated with the regressors as denoted by Hausman test result. Nonetheless, the ESG Combined Score is significant both with random and fixed effects estimations. Thus, ESG Combine Score seems to positively impact Tobin's Q or market's perception regarding firm's growth potential and efficient use of it its assets.

The coefficient of DEBT_ASSETS becomes positive contrary to the regression using ROA as the dependent variable. This finding probably stems from the market's positive interpretation of higher leverage because of tax benefit. As expected, the negative sign of the proxy for size does not change, meaning higher profitability (higher ROA), and higher growth potential and/or efficiency (higher TOBINS_Q) is more likely in relatively smaller firms.

Although a positive relation is revealed in the regressions, the link between ESG combined score and firm's performance might be endogenous and findings of the regressions could be biased. In other words, there might be a reverse relationship, meaning better financial performance might be leading to better ESG practice. Firms which have superior performance might be also more conscious and active in ESG issues. Additionally, better performing firms generally have more resources to allocate ESG issues. Lower performing firms generally put enhancement in financial performance in their top priority and are inclined to see expenditures on ESG issues as spending without any return. When an endogenous relation exists, it is required to solve equations simultaneously by specifying the inter-relationship among the variables using instrumental variables technique. By simultaneous equations methodology, we can deal with the causal relationship between ESG score and firm performance. Chosen instruments

Table 4. Impact of ESG Combined Score on Tobins_Q

	OLS		EGLS With Firm Random Effects		EGLS With Firm Fixed Effects	
Constant	8.569969	***	7.443076	***	4.149989	***
ESG_COMBINED	0.001205		0.004723	***	0.001977	***
LOG(ASSETS)	-0.386945	***	-0.343561	***	-0.147844	***
DEBT_ASSETS	0.353792	***	0.563910	***	0.452569	***
TANGIBILITY	-0.586981	***	-0.536477	***	-0.136002	*
Adjusted R^2	0.229495		0.063234		0.836648	
F-Statistic	354.6217	***	81.14259	***	52.86196	***
Breusch Pagan LM Test	14363.48	***				
Hausman χ^2 Test			81.565381	***		

Level of Significance: ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

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of simultaneous equations framework are expected to generate changes in independent variables but not in the dependent variable. Selected instruments are predicted to have at least some influence on the independent variables.

Thus, to explore the endogeneity between ROA and ESG_COMBINED, following equations are simultaneously solved with the anticipated instruments impacting independent variables:

$$ROA = f\left(ESG_COMBINED, LOG\left(ASSETS\right), DEBT_ASSETS, TANGIBILITY, \ Z_1, \varepsilon_1\right) \tag{3}$$

Instruments: ESG_COMBINED(-1), ESG_SCORE(-1), DEBT_ASSETS(-1), TANGIBILITY(-1),

$$ESG_COMBINED = f\left(ROA, ESG_SCORE, \ ESG_CONTROVERSIES, \ Z_2, \varepsilon_2\right) \tag{4}$$

Instruments: ROA (-1), BOOK_MARKET(-1), CAPEX_ASSETS(-1), SALES_MARKETVALUE, EBITDA

Where;

$$Book_Market_{it} = Book\,Value\,of\,Equity\,divided\,by\,Market\,Value\,of\,Equity\,for\,the\,firm\,i\,in\,year\,t;$$

$$Capex_Assets_{it} = Capital\,Expenditure\,divided\,by\,Total\,Assets\,for\,the\,firm\,i\,in\,year\,t;$$

$$Sales_MarketValue_{it} = Total\,Sales\,divided\,by\,Market\,Value\,of\,Equity\,for\,the\,firm\,i\,in\,year\,t;$$

$$EBITDA_{it} = Earnings\,before\,Interest\,and\,Tax\,for\,the\,firm\,i\,in\,year\,t;$$

Instrumental variables technique allows for consistent estimation when explanatory variables of the equation are correlated with the error terms because of an endogenous relationship between the variables. Two-stage least squares (2SLS) deals with potential endogeneity problem, and three-stage least squares (3SLS) handles potential endogeneity and cross-correlation between system-equations.

Estimated coefficients of ESG_COMBINED in system equations are in line with the coefficients estimated with OLS estimator and they are again highly significant as can be seen in Table 5. However, the insignificant coefficient of ROA reveals that reverse relation is not confirmable between ESG_COMBINED and ROA. Thus, the causal effect of ESG performance on ROA is only one way. The findings suggest that higher ESG score results in higher firm profitability when profitability is measured by ROA.

Following equations are solved simultaneously to determine the causal relationship between Tobins_Q and ESG_COMBINED.

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Table 5. Results of System Equations for Return on Assets (ROA)

	2SLS	3SLS
Coefficient of ESG_COMBINED (Equation 3)	0.000343***	0.000343***
Coefficient of ROA (Equation 4)	-0.271717	-0.271717
Adjusted R^2 Equation 3	0.050665	0.050665
Adjusted R^2 Equation 4	0.873658	0.873658

Level of Significance: ***p < 0.01; **p < 0.05; *p < 0.10

$$TOBINS_Q = f\left(ESG_COMBINED, LOG\left(ASSETS\right), DEBT_ASSETS, TANGIBILITY,\ Z_1, \varepsilon_1\right) \quad (5)$$

Instruments: ESG_COMBINED(-1), ESG_SCORE(-1), DEBT_ASSETS(-1), TANGIBILITY(-1)

$$ESG_COMBINED = f\left(TOBINS_Q, ESG_SCORE,\ ESG_CONTROVERSIES,\ Z_2, \varepsilon_2\right) \quad (6)$$

Instruments: TOBINS_Q(-1), BOOK_MARKET(-1), CAPEX_ASSETS(-1), SALES_MARKET-VALUE, EBITDA

The coefficient of ESG_COMBINED becomes insignificant in both 2SLS and 3SLS estimations. However, the coefficient of TOBINS_Q is significant in both estimations (Table 6). Thus, contrary to panel regressions, the causal effect of ESG_COMBINED on TOBINS_Q is not confirmed. However, as confirmed by the significant coefficient of TOBINS_Q, TOBINS_Q seems to affect ESG_COMBINED rather than other way around. Higher TOBINS_Q seems to lead to lower ESG_COMBINED. In other words, firms with higher growth potential and efficiency, seems to be less sensitive to ESG issues. Fast growing firms or firms with higher growth potential seem to give more priority to growth and efficient use of assets rather than ESG issues.

Table 6. Results of System Equations for Tobins_Q

	2SLS	3SLS
Coefficient of ESG_COMBINED (Equation 5)	0.000406	0.000404
Coefficient of TOBINS_Q (Equation 6)	-0.233003***	-0.233003***
Adjusted R^2 Equation 5	0.137369	0.137361
Adjusted R^2 Equation 6	0.885541	0.885541

Level of Significance: ***p < 0.01; **p < 0.05; *p < 0.10

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FUTURE RESEARCH DIRECTIONS

As transparency of corporate information gained importance, investors started to ask for accurate and timely non-financial information besides financial reporting. Accordingly, non-financial information started affecting financial decisions almost as much as financial data. Especially, environment conscious investors used this information in selecting their portfolio. However, the impact of information related to ESG (Environmental, Social, Governance) activities on performance indicators is not easily verifiable as it is difficult to measure both costs and benefits of ESG issues. Besides, the data is generally not transparent and timely available. When reliable information about environmental, social and governance activities is provided to the market by firms, the impact of ESG activities on the performance of firms can be evaluated with less effort.

In this study ESG Combined Score of Thomson Reuters® is employed as the only proxy for level ESG activities. Future research may dig deeper the impact of sub-categories of ESG activities as well as employing different performance indicators. Due to unavailability of data, the sample of this study consisted only of large US firms. It would be interesting to verify the validity of the results with the data from different countries. Thus, evaluating ESG and performance relation in other environments while controlling for size and industry differences may be a challenging research task.

CONCLUSION

As the opposing views of Milton Friedman and Edward Freeman imply, there is no consensus on the relation between environmental, social, governance (ESG) issues and firm performance. Ambiguous results observed mostly stem from the limitations on ESG rating methodologies and the extent of disclosure of ESG activities, which tends to vary considerably between firms. This study investigated the empirical relationship between Thomson Reuters ESG Combined Score and performance of S&P 500 firms with eleven years of data between 2006 and 2016. Thomson Reuters 'ESG Combined Score' is a comprehensive rating which measures company's relative ESG performance and effectiveness based on company's own reported data. It also incorporates the impact of ESG controversies. Firms' relative ESG performance are measured across ten main areas, based on annual reports, company websites, NGO websites, stock exchange filings, CSR reports, and news sources. ESG Combined Score also integrates ESG news controversies which substantially influence firms, into the final rating. Final score is also supposed to distinguish transparent and non-transparent firms as well as show-off firms which publicize more than execute. For measuring financial performance, return on assets (ROA) and Tobin's Q are chosen as dependent variables in the regression equations.

Based on panel regressions, the study verified significant one-way positive relation between ESG Combined Score and ROA, suggesting that improvements in ESG score have positive impact on the operating performance of the firm (when operating performance is measured by ROA). Thus, spending on environmental, social, and governance issues should not be viewed solely from the cost standpoint. The expenditures on ESG issues are likely to be compensated by improvements on operating profit in most cases. A weaker positive influence of ESG Combined Score is detected on Tobin's Q in panel regressions. However, as the findings might be affected by endogeneity bias, the robustness of results is attempted to be validated by simultaneous equations framework. Although simultaneous equation estimations with instrumental variables (IV) using two-stage least squares (2SLS) and three-stage least squares (3SLS)

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confirmed the significant positive relation between ESG Combined Score and operational profitability (ROA); contrarily, causal effect of ESG Combined Score on Tobin's Q is not verified. In fact, Tobin's Q seemed to affect ESG score rather than vice versa. Higher Tobin's Q seems to cause lower ESG score. In other words, firms with higher growth opportunities and/or more efficient as denoted by higher Tobin's Q, seems to be less sensitive to ESG issues. Fast growing firms or firms with higher growth potential look as if giving higher priority to growth compared to environmental, social, and governance issues. However, in the long run, investing in ESG issues and transparency are vital for the sustainable and healthy growth of the company. The opportunity costs associated with ESG activities generally prevent firms from spending their resources on these activities. On the other hand, the companies that involve in ESG activities generally develop certain skills that are adoptable in core operations. These new skills attained is likely to result in higher firm efficiency and eventually in better financial performance. In other words, higher managerial efficiency or better management practice prompted by the involvement in ESG activities might compensate opportunity costs in most cases. Further to this, considering ESG factors in the investment decision process is likely lead to more comprehensive investment analyses.

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About the Contributors

Hasan Dinçer is an Associate Professor of finance at Istanbul Medipol University, Faculty of Economics and Administrative Sciences, Istanbul-Turkey. Dr. Dinçer has BAs in Financial Markets and Investment Management from Marmara University. He received a PhD in Finance and Banking with his thesis entitled "The Effect of Changes on the Competitive Strategies of New Service Development in the Banking Sector." He has work experience in the finance sector as a portfolio specialist and his major academic studies focus on financial instruments, performance evaluation, and economics. He is the executive editor of the International Journal of Finance and Banking Studies (IJFBS) and the founder member of the Society for the Study of Business and Finance (SSBF).

Serhat Yüksel is an Assistant Professor of finance at İstanbul Medipol University. Before this position, he worked as a senior internal auditor for seven years in Finansbank, Istanbul-Turkey and 1 year in Konya Food and Agriculture University as an assistant professor. Dr. Yüksel has a BS in Business Administration (in English) from Yeditepe University (2006) with full scholarship. He got his master's degree for economics from Boğaziçi University (2008). He also has a PhD in Banking from Marmara University (2015). His research interests lie in banking, finance and financial crisis. He has more than 80 publications (books, book chapters, scientific articles, etc.).

***

Zafer Adalı is an MA student in Anadolu University in Turkey. He is interested in economics, finance, banking and development. At the same time, he is a research assistant in the department of Economics at Artvin Çoruh University.

Ilkben Akansel originally graduated in economics and received a master's degree in economics. Dr. Akansel received his Ph. D. in 2010 in the Public Relations field. Dr. Akansel's areas of specialization are economic thought, political economics, and institutional economics.

Murat Akkaya graduated from the Middle East University Faculty of Education Sciences in 1991. In addition, he is a graduate of T.C. Ziraat Bank MT - Banking School (1991-1992). He worked at the T. C. Ziraat Bank Fund Management and Capital Markets. He also worked as marketing director, branch manager and Azerbaijan Bank, Baku, Azerbaijan Foreign Trade Manager. He served as the Head of the Stuttgart Branch of the Germany Ziraatbank International A.G. He graduated from Beykent University with a Master of Business Administration in 2011 and a Ph.D. in Finance from Istanbul University in

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2015. His master's thesis is on "Innovation in Banking" and doctorate thesis is on "The Effects of Sentiment and Confidence Indices on Financial Markets: An Application on BIST 100." He now works at T. C. Istanbul Arel University, of the Faculty of Economics and Administrative Sciences, International Trade Finance Department (English). He has written a behavioral finance book and numerous published articles.

Ayşen Akyüz graduated from Marmara University, Business Administration Faculty in 1997. She has been to University of Arkansas as a non-degree student after graduation and stayed around one year in USA. When she returned to Turkey, she started to work in private sector as marketing manager. While working, she completed her master's (2001) and doctorate degrees (2008) in Marmara University, Production Management and Marketing Department. She started to work as a lecturer in Beykent University in 2009. Since 2016, she has been working as head of Public Relations and Advertising Department in İstanbul Medipol University. Her research areas include, branding, consumer behavior and marketing communications.

Bilge Altuntaş is currently working as a Full-time Dr. in the Communication Department of Istanbul Medipol University. She lectures on various marketing topics in graduate and undergraduate classes. She has 10 years of hands-on private-sector work experience, in addition to academic experience and studies. Her research interests include brand equity, brand management, health-care marketing, tourism marketing and mobile marketing.

Mustafa Atilla Arıcıoğlu got his undergraduate degree in Business Administration at İzmir Dokuz Eylül University, his master's degree and PhD from Selçuk University. He worked in the private sector for 7 years. Then, he worked at Selçuk University until 2012. Now, he is an Associate Professor at Necmettin Erbakan University.

Levent Ataünal holds a PhD degree from Marmara University in Finance and Accounting. Currently, he works as a freelance researcher. His research interests include financial markets, firm valuation and growth, shareholder value creation, and corporate social responsibility (CSR). He has published various articles and book chapters in renowned academic journals.

Aslı Aybars has been working in the Accounting and Finance Department at Marmara University since 2010. Her special interest fields are financial markets, investments, valuation, corporate social responsibility (CSR), risk management, and anomalies in financial markets. She has published numerous articles and book chapters with a particular focus on ownership structure, CSR, and innovation.

Federica Brunetta is an Assistant Professor in the Department of Business and Management, LUISS Guido Carli University, Italy, and she has completed her PhD at Università Cattolica del Sacro Cuore, Italy. She has been a Visiting Scholar at the University of Michigan's Ross School of Business, USA. Her research interests include strategy, networks, and management of innovation.

Nildag Basak Ceylan is a Professor of Finance at Ankara Yildirim Beyazit University, Business School, Department of Banking and Finance, Ankara, Turkey. She was born and grew up in Ankara, Turkey. Dr. Ceylan has a BS in Mathematics from METU (1996), MSc in Management from Baskent University (1999) and a PhD in Management (Finance) from Gazi University (2004). Prior to joining

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the Yildirim Beyazit University, Dr. Ceylan was a lecturer in Business Administration, Atılım University from 2002 to 2011. Her research interests include international finance, behavioral finance, and financial markets and institutions. She has taught International Finance, Financial Markets and Institutions and Real Estate Finance courses at both graduate and undergraduate levels. Dr. Ceylan has published numerous articles in finance and economics journals.

Ramesh Das is currently an Associate Professor of Economics of Katwa College, West Bengal, India. He has obtained Masters, M. Phil and Ph. D Degree in Economics from the University of Calcutta. He has eighteen years of teaching and research experience in different fields of economics including theoretical and empirical economics, financial economics, environmental economics and political economics. Dr. Das has contributed several research papers to national and international journals and completed three MRPs sponsored by UGC, India. He has one text book on Microeconomics for different fields of readers and academician. He is the editor-in-chief in Asian Journal of Research in Business Economics and Management, Associate Editor of International Journal of Research on Social and Natural Sciences and one of the EAB members of Society for the Study on Business and Finance. He edited two Handbooks on globalization, investment and growth-implications of confidence and governance and global indicators of economic and political convergence and two edited volumes on infrastructure developments and worked s guest editor of IJSEM's Special Issue (2 parts), all are of IGI Global, USA.

Utpal Das is currently an Assistant Professor in Commerce of Katwa College, West Bengal, India. He has obtained his master's Degree from The University of Calcutta, India. He is presently doing doctoral level researches under the same university with special emphasis on rural roads structures and its impact upon the socio-economic aspects of the rural people of West Bengal. He has about ten years of teaching and research experience with a number of publications on different fields of commerce, economics and management.

Engin Demirel is an Associate Professor of Finance in the Faculty of Economics and Administrative Sciences at Trakya University. He received his master's degree (MA) in the field of Finance (Options Pricing) in 2005 from Trakya University and Doctorate (Ph.D.) (Fixed Income Securities Portfolio Optimization) in Accounting and Finance in 2009 from Marmara University. He teaches finance courses at graduate and undergraduate levels. His research interests include financial markets and institutions, portfolio optimizations and international finance. Demirel, has published four books, a number of book chapters and articles in national and international journals.

Ozge Doguc is a full-time faculty member in Department of Management Information Systems at Istanbul Medipol University. She is also working as a Business Analyst Manager at Bank of America New York. She manages the business processes in the Enterprise and Mark Risk Departments across New York, Dublin and India offices. She worked on projects to create solutions for the risk managers for changing risk requirements (Basel III, Dodd Frank, etc.) across the bank. Prior to joining Bank of America, Dr. Doguc worked for Asset Control (a subsidiary of Fidelity Investments) in New York as a Business Analyst and Project Manager for 6 years. There she worked with major banks such as JP Morgan Chase, HSBC, Wachovia and US Federal Reserve in various financial IT projects. Her primary area of focus was centralized data management software and solutions. Dr. Doguc holds PhD and master's degrees in Systems Engineering and Engineering Management from Stevens Institute of Technology

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in New Jersey. She published more than 20 academic papers in various acclaimed journals and international conferences. During her studies, she worked in estimating complex system reliability and grid systems. Dr. Doguc is the recipient of many academic awards and recognitions. She is an active member of International Council on Systems Engineering (INCOSE) and American Society of Engineering Management (ASEM).

Ebru Enginkaya is an Associate Professor of Marketing at Yıldız Technical University, Turkey. She received her PhD in Marketing from Marmara University. Her current research interests are social media marketing, mobile marketing, brand management and consumer behaviour.

Imre Ersoy works as an Associate Professor (PhD) at Marmara University, Institute of European Studies. Beforehand, she worked for the Banking and Insurance School of Marmara University. She worked for 13 years in the Treasury departments of foreign and Turkish banks before joining academia.

Derya Fındık received her B.A. degree in Public Finance from Istanbul University in 2002. She obtained her Msc. degree and Ph.D. degree in Science and Technology Policy Studies at Middle East Technical University (METU). She worked as Research Assistant at METU between 2003-2013. She has research experience in innovation related issues (technology management, ICT adoption, and entrepreneurship) Since 2018, Dr. Fındık has been working as an associate professor of Management Information Systems at Ankara Yıldırım Beyazıt University, Ankara.

Elvira Anna Graziano has a Ph.D. in Banking and Finance from the University of Rome "Tor Vergata." Graziano is also an Assistant Professor in Banking at Link Campus University, where she teaches Corporate Finance and International Corporate and Investment Banking. She is a winner of the AIDEA award for young manager, her main research interests focus on behavioural finance and investors' performance.

Ali Osman Gürbüz has been working in Banking and Finance Department at Istanbul Commerce University since 2012. His special fields of interest are corporate finance, financial markets, investments, asset valuation, corporate social responsibility (CSR). He has published numerous articles and book chapters related with ownership structure, CSR, firm growth, and value creation.

Suadiq Mehammed Hailu is a PhD candidate in Finance at Cukurova University in Turkey. He received a Bachelor`s Degree in Banking and Finance from Jimma University, Ethiopia and Master`s Degree in Banking and Finance from Ankara Yildirim Beyazit University, Turkey. He received Turkish Government Scholarships for both his Master and PhD education programs. His research and publication interests include conventional and Islamic finance.

Melik Kamışlı received his MS in Business Administration Master Program from Osmangazi University in 2008. He was hired as lecturer by Bilecik University in 2009. He received his PhD in Finance program from Anadolu in 2015 and became assistant professor at Bilecik University in 2015. He currently gives international finance, investment decisions and portfolio analysis, financial crisis and risk management courses in Finance and Banking Programme.

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Serap Kamışlı received her PhD in Finance program from Anadolu University in 2015 and became assistant professor at Bilecik University in 2015. She currently gives financial management, financial markets and institutions, financial mathematics and business finance courses in Finance and Banking Programme.

Ayhan Kapusuzoglu is an Associate Professor of Finance at Ankara Yildirim Beyazit University, Business School, Department of Banking and Finance, Ankara, Turkey. He was born and grew up in Ankara, Turkey. He holds a BA and MSc in Business Administration from Abant Izzet Baysal University as well as a PhD in Business Administration (Finance) from Hacettepe University. Prior to joining Ankara Yildirim Beyazit University, Dr. Kapusuzoglu was a research assistant in Business Administration, Hacettepe University from 2008 to 2011. He has been as a visiting scholar at many institutions in United Kingdom, including Bangor University, The University of Hull, University of Dundee and The University of Edinburgh from 2011 to 2018. His research interests include energy finance and markets, risk management, behavioral finance, financial markets and institutions, and financial development. Dr. Kapusuzoglu has published numerous articles in finance and economics journals.

Seda Karagoz Zeren is Research Assistant of Tourism and Hotel Management department in the Faculty of Economics and Administrative Sciences at Trakya University. She received her first master's degree (MA) in the field of Application Math in 2013 from Kütahya Dumlupınar University and second master's degree (MA) in the field of Business in 2016 from Trakya University. She has been a Ph.D. student in the Department of Mathematics at Anadolu University since 2015 and in the Department of Business Administration at Trakya University since 2016. Her research interests include tourism finance, health finance, computer and science applications in accounting and finance and applications math. KARAGOZ ZEREN has published one book, a number of book chapters in the national journal and proceedings books chapter in the national and international conference.

Mustafa Kartal received the MBA degree in business administration from Sakarya University, Sakarya, Turkey in 2009, and PhD degree in banking from Marmara University, İstanbul, Turkey in 2017. His research interests focus on accounting, audit, banking, capital markets, economics, finance, Islamic finance, laws, and legislations. He has authored 1 book, 16 book chapters, 21 articles, and 2 proceedings in Turkish and English. Also, his 9 articles have been in reviewing process. He continues to work on book chapters and articles. He has also been taking role as referee in 10 national and international journals. He is a currently capital markets professional.

İbrahim Kırcova is a Professor of Marketing at Yıldız Technical University, Turkey. He received his PhD in Marketing from Uludağ University. His academic research interests are digital marketing, e-commerce, mobile marketing, social media marketing.

Asuman Koç Yurtkur is serving as a lecturer in the Department of Economics at Bulent Ecevit University. She graduated from Gazi University in 2002. In 2005, she completed her master education in Bulent Ecevit University. She received her PhD from İstanbul University in 2012. Since 2013, she has taught economics, monetary theory and politics, economics policy and microeconomics courses at the Bulent Ecevit University. At the same time, there are various articles and papers on various economic issues, especially macroeconomics, energy economics and economics schools.

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Ömer Koçak received his bachelor's degree from Marmara University in 2011, and his master's degree in Organizational Behavior from Marmara University in 2014. He received his Organizational Behavaior PhD degree from Marmara University in 2017. He has been working at Medipl Business School for three years.

Murat Ocak currently works as assistant professor at Trakya University, Edirne, Turkey. He holds a BSc from İstanbul University, İstanbul, Turkey; and a PhD in Business from İstanbul University.

Fatih Pinarbasi is a Research Assistant at Istanbul Medipol University. PhD Student at Yildiz Technical University.

Nurten Polat Dede is working as an Assistant Professor in the field of Human Resource Management at the University of Medipol, Business School. She had her PhD from İstanbul University, Faculty of Business Administration, Institute of Social Sciences, Human Resource Management, Istanbul University, 2007 She had her MBA, from İstanbul University, Institute of Social Sciences of Organizational Behavior, 2000. She had her bachelor degree from İstanbul University, Faculty of Business Administration (English Programme), 1996 Her main research interests are how can line managers and HR managers can collaborate to design and implement efficient HR systems, policies and practices to achieve high organizational performance.

Seçil Şenel is an assistant professor in İstanbul Medipol University. Her research area is economic history.

Davide Tammam has completed his MSc in Management at LUISS Guido Carli University and has graduated cum laude with a dissertation on "Disruption theories and their consequences on the market: a focus on the Telecommunication Industry" in which he has analysed the disruptive potential of the new entrant Iliad in the Italian market.

Nilüfer Vatansever Toylan is currently an Assistant Professor in Tourism Faculty at Kırklareli University. She has received her master's Degree from Hacettepe University in 2005 with her thesis titled "Employees' perspectives about the effect of organizational communication on employees' productivity, a research on employees of five star hotels in Ankara." In 2006, she started her academic career as a Lecturer at Kırklareli University. She has received a Ph.D. degree after writing a dissertation entitled "Research of the effects on organizational innovativeness via the knowledge sharing of the interorganizational relation elements in hotel managements within strategic alliance formation." Currently serving as the Head of the Department of Tourism Management, TOYLAN continues to research in the Subjects of Tourism Management, Strategic Management, Contemporary Management, Interorganizational and Organizational Trust, Knowledge Management, Knowledge Sharing and Innovation.

İlknur Taştan Boz currently works as an Assistant Professor at Trakya University, Edirne, Turkey. She holds a BSc in Business Management from A.İ.B. University, Bolu, Turkey, a MA in Business Management from Trakya University, Edirne, Turkey and a PhD in Management and Organization from Marmara University, Istanbul, Turkey.

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Fatih Temizel received his PhD in Business Administration program from Anadolu University in 2005 and became associate professor at Anadolu University in 2013. He currently gives capital markets, securities analysis and financial management courses in department of accounting and finance.

Francesca Vicentini is an Associate Professor in Management at LINK Campus University, Italy. She has been post-doc research fellow at LUISS Guido Carli University. She received a PhD in Management at Bologna University. Her research interests cover topics in the field of strategy and human resource management, business model and innovation.

Büşra Yiğitol was born in 1989 in Sakarya, Turkey. She got her undergraduate education in Business Administration at İzmir Dokuz Eylül University, her master's degree in Department of Management and Organization at Sakarya University. She works as a research assistant at Konya Food and Agriculture University since 2015. At the same time, she is a PhD student at Necmettin Erbakan University.

Cengizhan Yıldırım is assistant professor at Abant İzzet Baysal University.

Gönül Yüce Akıncı received her MS in Business Administration Science from Suleyman Demirel University in 2006 and her PhD in Department of Finance from Suleyman Demirel University in 2011. In 2012 she was hired as an Assist. Prof. Dr. at Ordu University Unye Faculty of Economics and Administrative Sciences. She still works at the faculty in the department of business. She writes and presents on issues of financial management, financial markets, economic growth, financial economics and econometric models in finance.

Sinemis Zengin is working as a customer experience manager in TEB, joint in venture of BNP Paribas, to create awareness about customer experience and provide knowledge of customer's insights to organization. Zengin started banking in the Treasury Department, after having worked in product marketing. Zengin has a bachelor's and master's degree in industrial engineering. And also, she has PhD in banking.

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