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Throughput Accounting in a Hyperconnected World

Ionica Oncioiu

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Ionica Oncioiu
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company to the business environment. The results of the study have shown that successful management of change is important for the survival and success of any company in the current environment in Albania. To take advantage of the benefits of organizational change stimulated mainly through innovation, companies need to think, act holistically, and make multi-level changes.

This chapter highlights some aspects of the contribution of TA to enhancing environmental performance. The main objectives of this chapter are to highlight aspects related to the TA and its implications for its use as an efficient method in ensuring decision support in the environmental reports of an economic entity. This implies the transition to a larger geographic scale of national economies and, implicitly, the global economy, from a linear economy to a circular economy that should not only involve the recycling of resources but also the green reporting requirement. All aspects presented by the authors are based on the existing specialized literature, university studies, and specialty from all over the world. A new conceptual and empirical framework has been developed as a result of the issues debated and presented by the authors, whose purpose is to extend the knowledge of specialists from all over the world, as well as challenging other equally interesting new research themes.

This chapter presents some aspects of the managerial implications of throughput accounting on the tourism services market in Romania. The main objectives of this chapter are to present a comparative analysis of the managerial implications between the throughput accounting and the managerial accounting methods used by the entities from tourism industry. Based on the literature, the authors present the main

The scientific approach of the authors' aims at highlighting the performance of the Romanian enterprises, based on the statistical indicators, and their competitiveness in the national and European economic space. Romanian companies are facing a decline in productivity lately, mainly due to a shortage of qualified workforce. Exodus of the skilled labor force towards the European market has led, most of the time, especially among small and medium enterprises, to reducing their activity, decreasing their productivity, and implicitly, to decreasing the profit rate. In this context, the competitiveness of Romanian companies in the European economic space has dropped considerably. Throughout the research, the authors highlight the economic impact due to the use of an unskilled workforce, which led to a low productivity and a decrease in the performance of the enterprises. The research is the results of the analysis of the statistical data, mainly provided by National Institute of Statistics surveys.

Historical cost is the main basis for assessing tangible assets in the annual financial statements. However, the accounting regulations applicable in Romania allow the valuation of tangible investments at fair value determined by authorized persons. Once chosen, this option must be applied consistently for the entire class of tangible assets subject to revaluation. By January 1, 2015, national regulations did not allow the return from the fair value method to historical cost method. The chapter aims to present both the accounting and tax treatments to be adopted when choosing the fair value, as well as those related to returning to the cost-based approach.

Currently the organization's risk management covers a wider range of risks, especially operational risks, reputation risks to the organization, and more recently, strategic risks. Moreover, within a growing number of organizations, responsibilities associated with risk management are assumed by the top management, which generally coordinates the teams of specialists directly responsible for monitoring the risks and the risk handling measures. This chapter focuses on how to implement an approach to reduce the identified risks to the information conveyed through computer systems and communications. In additional, it presents EU regulations relevant to the analysis and risk management information security.

Achieving performance remains the desire of entities, both those present in the competitive market, and new start-ups that break the existing markets, capitalizing on the opportunities offered by an external environment characterized by volatility, uncertainty, complexity, and ambiguity, but also the present digitalization, internet of things (IoT), 5G internet, and e-platforms. Seen as a reflection of the clear vision of extremely powerful leaders, the overall performance of the entity is attained today against the background of the innovation process. This chapter presents radiography of the new research and deepening directions at the intersection of accounting and management, between science and practice, with the role of potentiating performance as a result of managerial accounting and leadership vision.

Preface

Today's accounting environments are aware of sustainability issues. Under the pressure of Digitalization, economic entities must write their Value-Added Statement taking into account the goals of Sustainable Development and the focal point that influences this strategy, while also building internal values, organizational culture and external trust and brands, transcending leaders and guiding stakeholders. Parallel with this, social media have also gained considerable attention from the academic and business worlds. Thus, it is imperative to note that new media, and by extension social media, are by their very nature drivers of social, national and organizational development.

On top of that, the context of the new, volatile, uncertain, complex and ambiguous economic environment - VUCA World - governed by the Industrial Revolution 4.0, Artificial Intelligence, Internet of Things and Data Revolution, has triggered new economic concepts such as Circular Economy, Sharing Economy, Global Green Economy, Sustainable Development. Their power of action on both the exogenous and the endogenous economic entities, together with the changes at a geo-political, legislative and environmental level, imposed the necessity to extend the area of scientific and academic research towards new approaches.

Furthermore, the challenges of the new economic environment have led to the development of modern, global, customer- and talent-oriented entities, as well as to cost reductions, increased investment in R&D, innovation, and gaining competitive advantage beyond space and temporality. Future R&D on the infrastructure is to be focused on the physical internet and on power lines for establishing local digital networks and local grids for digital production processes in company facilities. More specifically, big data analytics can facilitate business decision making and a realization of business objectives through analyzing existing data and future trends, creating predictive models to forecast future threats and opportunities, and optimizing business processes to enhance organizational performance using the mentioned techniques.

In other words, even powerful leaders have difficulty finding anchorages in this new economic environment that will retain its competitive advantage and face the new threats to remain performing. The impact of the Internet of Things (IoT), Cloud Computing, Distributed Intelligence and Robotics on entities over the 2020-2030 period will be very strong. Only an in-depth knowledge of the entity, the operations carried out, the transparency of managerial and financial processes, knowledge of the external environment, and above all threats, the innovation to increase the quality of products and services, will diversify them and create internal mechanisms to respond to the disruptive forces together with a managerial culture in which the leader has the power to influence the world, to ensure that he remains in the market.

As suggested by its title, *Throughput Accounting in a Hyperconnected World* displays various cross- and multi-disciplinary approaches. The authors of the papers in this volume propose practical solutions which reflect a dynamic and interdependent approach with the added value of the Core of the Business and at the same time the Leadership's ability to develop an entity based on the principles of Throughput Accounting. For this reason, I believe that the content of this volume represents a starting point for finding answers to the demands posed by a hyperconnected world.

Therefore, the 15 chapters published in this book invite any reader to explore the main factors that contributed to the configuration of the throughput accounting. The people about whom I am going to write in the following pages unanimously agree that new social, technological, environmental and political trends converge to create disruptive and disturbing forces, remodeling the consumers' behaviors and preferences, going in-depth and responding to questions on how/when/where. Challenged by the evolution of a fragmented market, the pragmatic adoption of new technologies brings about new opportunities for market players to innovate and develop business models that generate profit.

The advantages of the Treasury Single Account (TSA) through the full implementation of e-payment and e-collection systems are emphasized by Sulaiman Haruna, Normalini Md Kassim, the authors of the first chapter, "Factor Influencing the Intention to Use E-Collection System in State-Owned Tertiary Institutions in Nigeria". This study introduces a solution concerning all transactions relating to items of expenditure and spending that can be tracked and checked, thereby reducing the corrupt practices in the use of allocated funds for infrastructure development and maintenance of existing buildings in tertiary institutions in Nigeria. For this reason, the authors argued that it is expected that the findings of this study would be used by policymakers at the state government's level in order to further support the efforts towards effective implementation of TSA in Nigerian tertiary institutions.

The key message of the article "Throughput Accounting: Decisional Informational Support for Optimizing Entity's Profit" is that the throughput accounting and its implications on the management accounting methods have opened up new directions for optimizing the profit of an entity. Sorinel Căpușneanu, Dan Ioan Topor, Mirela Cătălina Turkeș and Ileana-Sorina Rakoș present the comparative analysis of the managerial implications between Throughput Accounting and some managerial accounting methods, hybridization attempts with other methods, as well as its advantages and limitations in the current context of implementation and profit optimization when it comes to an economic entity. The results revealed that the Throughput Accounting eliminates the dependence on cost accounting standards, while the Theory of Constraints (as a component of the development of production capacity accounting) enhances the role of constraint in managerial decision making.

The focus of the chapter "The Usefulness of Accounting Models in Providing Accounting Information in Romania" is on the fact that models of cash accounting and accrual accounting caused major implications in the decision-making process by users of accounting information. Tatiana Dănescu and Luminiţa Rus discuss the perspective on the improvement of the quality of accounting information by using a detailed analysis of the indicators calculated over an extended period of time and on the results of several economic entities in various sectors of activity, even from different countries. The difference of models is obvious if we think of the typology of the objectives or the vision of the two categories of actors: manager act on a long-term vision, while business owners often have a short-term vision that requires maximizing quick profits or the investment that they have made. A sensitive area is also the one of the financial companies, where innovation and financial engineering, specific to their activity, made it possible to carry out operations that would provide tax treatments favorable to complex transactions, but of the same economic nature as the simple ones, taxed less favorably instead.

The fourth chapter of this book, "Reflections on the Effect of Organizational Restructuring: Evidence From Albania", examines the new perspective on processes of change and adaptation to change in Albanian telecommunications companies in order to maintain their position on the market. Ionica Oncioiu and Diana Andreea Mândricel suggest that telecommunication organizations need to permanently study and monitor the external environment to anticipate changes and adapt quickly. The results of this study show that a successful management of change is very important for the success of the organization and its survival in the current business environment.

The objective of the chapter "Throughput Accounting and Green Reporting: Decision Support for Enhancing Environmental Performance" is to highlight aspects related to the throughput accounting and its implications as an efficient method in ensuring decision support in the environmental reports of an economic entity. Dana Maria (Oprea) Constantin, Dan Ioan Topor, Sorinel Căpușneanu and Adrian Anica-Popa explain that the throughput accounting offers an alternative to the traditional methods of calculating total costs and/or partially changing the perspective of managers' perceptions but also that of employee staff, the values and outcome of a company. Moreover, the information and awareness of the population, socio-economic better planning and hence a more efficient environmental reporting will all lead to an improved environmental performance.

The next chapter, "Throughput Accounting: The Analysis of Managerial Implications on the Tourism Services Market", makes an interesting contribution regarding the managerial implications of the throughput accounting on the tourism services market in Romania. Andreea Marin-Pantelescu, Cristina-Ștefania Popa and Nermin Sharbek present a comparative analysis of the managerial implications between throughput accounting and the managerial accounting methods used by the entities from the tourism industry. The results revealed that all the actors involved in tourism and travel industry (resorts, attraction suppliers, event organizers, transport operators, accommodation, food and drink facilities, tour operators, and travel agents) are open to new accounting studies that will increase their revenue. Throughput Accounting proves its effectiveness where needed, and the entity as a whole contributes to substantiating and making better management decisions based on three critical monetary variables: production capacity, inventory and operational expenditure.

Tatiana Dănescu and Mihaela Prozan in "Valences of the Corporate Governance in the Process of Accounting Reporting" investigate the role of corporate governance in improving the process of accounting, reporting as a necessity of ensuring the transparency and the utility of accounting information. Corporate governance plays an important role in financial decision-making, acting as a top management system that manages and controls the performance of the entity. The efficiency of corporate governance depends on the structure of the entity, the board of directors and the degree of participation of managers in the decision-making process. Where well-defined control and audit structures exist, the risk of developing creative accounting is low, and therefore corporate governance seems to be the best way to control non-ethical practices of accounting. The chapter concludes that it is possible to identify reliable solutions for ensuring the implementation of a proactive and prospective risk management that leaves a mark on the utility of the information presented and communicated, to the targeted users, especially through accounting reporting.

The chapter "Ethics in Accounting and Finance: Actual Issues and Controversies" focuses on the aspects of applying ethical conduct in the fiscal and accounting field, as well as analysing the causes and consequences of ethical and unethical conduct specific to the topic addressed. Ionica Oncioiu, Tatiana Dănescu and Maria-Alexandra Popa believe that the accounting scandals that took place in the year 2000 prove that greater emphasis is needed on educating accounting ethics, but also on improving the codes of ethics. In addition to the Code of Ethics, organizations need continuous management involvement as well as professional accountancy organizations working together to implement ethical principles and increase responsibility. Trust is an essential element in business survival, and the big economic and financial scandals have demonstrated the fragility of public or customer confidence. The ethical principles promoted by professional bodies refer to the relationship between the accountant and the organization, the content of the activities carried out, the way in which the independence of the profession must be maintained, the way conflicts of interest are resolved, or the standards of behavior. If the accountant does not have an independent status, there is a conflict of interest between the quality of the employee and the professional, with the possibility of having adverse effects. As a result, the authors suggest that the accounting and tax approaches are law-based approaches. That being so, the question arises: are these practices evidence of ethical misconduct?

"The Performance and Competitiveness of Romanian Enterprises in the European Economic Space" is a chapter which tests the major role of performances and competitiveness with the help of the indicators in Romanian enterprises. Rodica Gherghina, Ioana Duca and Nicoleta Caragea present a statistical analysis in which the performance and competitiveness of Romanian enterprises are outlined in the European context. The data reveals the fact that, in order to increase the Romanian economy's competitiveness, it is strictly necessary to ensure the development of a stable and dynamic e-business environment, by increasing the number and degree of using e-business opportunities by enterprises in general, and by SMEs in particular.

According to Traian Ovidiu Calotă and Alin Eliodor Tănase, the authors of the chapter "The Decision Process Based on the Accounting Information System", the tendency is to use current cost accounting in response to failure based on a historical cost model used to solve problems connected with the non-cash effect of changes in asset prices. In addition, while the purpose of the standards has been to protect all stakeholders by providing relevant, neutral, credible and verifiable information, certain irregularities are still likely to occur, in particular due to the replacement of historical cost as a basis for fair value measurement. Even if fair value is aimed at improving the balance sheet value measurement tools and the reflection of a relevant and current business valuation, it is the engine for creating prerequisites for creative accounting, especially with regard to asset valuation. Afterward, the ability to choose from several accounting policies is justified by the desire to provide a true picture of the financial position and performance of entities but at the same time it can be used subjectively by choosing policies that best circumscribe the personal interests of managers.

Nelu Mocanu, in the chapter "Drawing the Technologies of Improving the Methods of Anti-Crisis Management Based on a Complex Approach", wishes to widen the perspective of the economic – organizational analysis of the strategies applied in the anti-crisis management. He considers that the anti-crisis represents a complex of special programs that contain, besides purposes and resources, forms and rules of managing subdivisions in the dynamic environment (formulas of behavior in different situations, algorithms of management, scheduled decisions). At the same time, the decisive condition for improving the crisis situation is finding reasons and resources to consolidate the common actions of the enterprise's opponent subjects.

The study "Joint Enterprise and Financial Position Consolidated at the Date of Acquisition" by Tănase and Calotă investigates the concept of joint business and distinguishes between two notions: acquisition of assets vs. acquisition of businesses. In this chapter, the authors presented from a practical perspective the elaboration method of the consolidated financial situations on a subsequent date, also called the reporting date, compared to the acquisition date. According to the consolidation methodology, the revenues and expenses of a subsidiary are included beginning with its date of acquisition, until the date where the control ceases to exist, and the values which the subsidiary is counting on are the value of the assets and liabilities recognized in the consolidated financial situations at the acquisition date.

In Chapter 13, Oba focuses his attention on the role of internal controls in Corporate Governance systems. He considers that internal control should not be understood as a function - it is a process of intense dynamics when it is desired to adapt the entity to rapid changes in external media (economic, social, political, technological etc.). The existence of clearly defined internal controls on how to use or apply it is an effective way to mitigate and even remove large risk categories, including financial-accounting. The study shows that, as in the case of detection of errors or non-conformities, the accounting data must be correlated and it is necessary to verify the existence of supporting documents, to verify the reality of the transactions by means of additional verifications and to check how the taxpayer manages his business in general. The author argues that it is very likely for entities that have good corporate governance to have internal control mechanisms that prevent such diversion effects of the entities' personal assets and a negative relationship between incentives given to managers and avoidance of taxes will be manifested where there is effective corporate governance.

The chapter "Information Security Risk Management in the European Union" builds upon the modalities of implementing an approach to reduce the identified risks to the information conveyed through computer systems and communications. Currently there are technologies and security architecture that can provide mechanisms which have the ability to manage threats and emerging technologies that need to be taken into account in designing systems to protect information. Operational stability, secured by a security policy very well put together, will be a competitive advantage for most organizations. Anca-Gabriela Petrescu and Nicoleta Sîrbu analyzed whether differences existed between the strategy of the risk acceptancy and EU regulations relevant to the analysis and risk management information security. Current technologies have given the smaller players a better opportunity at being able to process data and collect it, but at the moment it is not providing the full landscape required to use big data in its most efficient or insightful form.

The last chapter of the book is written by Alina Stanciu and is titled "Performance as a Result of Managerial Accounting and Leadership Vision". The author describes the new research and deepening directions at the intersection of accounting and management, between science and practice, with the role of potentiating performance as a result of managerial accounting and leadership vision. She also suggests that the challenge is all the more so since the influence of the endogenous and exogenous factors of the entities is continuous, hard to control and in which the concept of Performance brings together under this umbrella other characteristics beyond the economic and financial ones that modern entities must incorporate and develop in their own strategy. Thus, the understanding of the economic and managerial mechanisms of functioning, underpins the making of relevant, real and especially opportune decisions with a role in counteracting the turbulent environment threats and increasing the potential of the entity. In any case, the leaders of the future need to understand the depth and impact of what managing change in organizational development means in their pursuit of performance, productivity growth, and selection and motivation of the human resource appropriate to the specific business.

This overview of the content of this volume outlines that each contributed chapter contains elements that have the potential to open doors for future research. Certainly, achieving entity performance determines the decentralization and delegation to inferior hierarchical levels by tacitly imposing responsibility at all levels of decision and action. This can only be achieved by directly correlating the expected performance and meeting the standards required and communicated by managers with the motivation of human resources to achieve this performance. Thereby, Throughput Accounting is conceptually positioned with the help of literature in the field, taking into account the time factor in a not too distant future, and highlighting the interdependencies with new concepts of the current economic environment.

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I think that in life nothing is accidental, and sometimes when you least expect, there are people coming into one's life who are able to see in one's person more than she can see. Looking back, I realize that I am tremendously indebt to Ms. Elena Druică. I want to thank her for trusting me, for our extremely positive collaboration and for opening thus a door to a new challenge for me: the editorial activity. I wish to thank Ms. Druică for each virtual encouraging smile, for each piece of advice and especially for her on-going generous and kind support.

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Chapter 1
Factor Influencing the Intention to Use E-Collection System in State-Owned Tertiary Institutions in Nigeria

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ABSTRACT

The absence of effective and adequate means of revenue generation as well as collection in Nigeria has necessitated the federal government to introduce and adopt Treasury Single Account (TSA) through the full implementation of e-payment and e-collection system. This has also obliged the state governments across the country to adopt the TSA system. The e-collection system is a computer-based revenue collection system designed to improve the effectiveness and efficiency of revenue collection through electronic means in order to prevent fund shortages and cash leaks within the government sectors. In this chapter, technology acceptance model (TAM), computer self-efficacy, and subjective norm were adopted to examine the level of preparedness of accounting staff of state-owned tertiary institutions with respect to their intentions to use the e-collection system. It is expected that the findings of this study would be used by policymakers at the state government level to further support the efforts towards effective implementation of TSA in Nigerian tertiary institutions.

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INTRODUCTION

It is obvious that Information and Technology Communication (ICT) is affecting our every aspect of daily life. ICT continues to play a significant role in enhancing the processes and approaches for organisational decision making. Therefore, both private and public organisations are moving towards implementing electronic systems to help the organisations provide efficient and effective workflow (Kabir, Saidin, & Ahmi, 2017). From the global perspectives, various organisations all over the world have implemented the digital systems in discharging public service (Lee, Hwang, & Choi, 2012). In the same vein, the Federal Government of Nigeria made an effort to change its way of generating and collecting revenue from traditional to a digital system. This was achieved by adopting the Treasury Single Account (TSA) in the year 2015 through full implementation of e-payments and e-collections systems. Specifically, the Federal Government of Nigeria, on the 9th february in 2015 issued an order to ministries, departments and government agencies to close accounts with commercial banks and be paying all the collected revenue, incomes, and receipts into consolidated revenue fund and Treasury Single Account (TSA) as a new electronic revenue collection system. Subsequently, all incomes and receipts due to the Federal Government or any of its agencies must be paid into TSA or designated accounts maintained and operated by the Central Bank of Nigeria (CBN) (Kifasi, 2015).

Nonetheless, the Federal Government directives would end the previous public accounting situation of several fragmented accounts for government revenues, incomes, and receipts, which in the past has caused the leakages and loss of legitimate income meant for the Federation Account. The directive was applied to fully funded Federal Government organization like the ministries, departments, agencies and Foreign Missions, as well as the partially funded ones. The new system is not the initiative of the government that fully implemented it, it went all the way to 2012 when the Federal Government implemented the first phase of a single account policy within 217 ministries, departments and agencies (MDAs) as a case study which led the government to save about 500 billion naira from unnecessary spending by the MDAs. The Federal Government was impressed with the achievement brought by the policy and, therefore, called all financial institutions to adopt the new technology so as to support and accommodate the treasury single account policy (Adetula, 2017).

This newly introduced e-collection system is aimed at increasing the internally generated revenue especially in the face of declining oil prices globally. The e-collection system necessitates that cash is no longer accepted at the Cash Point Centre of the revenue agencies. In line with the Federal Government initiative, many state governments within the country have started an effort to adopt the TSA in their respective states; for examples, in Kaduna State (El-rufai, 2016), in Lagos State (Akinkunmi, 2016), in Plateau State (Lalong, 2016), and Ogun State (Amosun, 2014). All the above-mentioned states had implemented the revenue collection system, and they are deriving the benefits of implementing it by increasing their internally generated revenue. Akande (2015), asserts that TSA is an integrated system of account by the government which enables consolidation and optimal utilisation of government cash and resources. It is a single bank account or set of accounts which enable the government to manage all its receipts and payments and gets a consolidated view of its cash position at any given time. However, it is paramount to mention that TSA cannot be fully implemented without strong IT infrastructures such as e-payments and e-collection systems.

e-Collection system is a computer-based revenue collection system that is designed to improve the effectiveness and efficiency of revenue collections (Mukherjee, 2017), (Esther & & Henry, 2017), and (Wakabala et al., 2017) through the means of new technology, that is, electronic collection systems; so that all cash leaks and fund shortage within the public sector in Nigeria could be identified and handled effectively (Kabir, et al., 2017). e-Collection system was introduced in the year 2015 by the Federal Government of Nigeria to reduce the risk of cash related crimes and help to control revenue related corrupt practices in the country. It was also introduced purposely to monitor and safeguard government cash collection from fraud, theft, and misappropriation by the employees responsible for collecting the revenue. According to Fatokun, (2015) the new system of collection is a solution for the collection of government revenue, government fees, taxes and customs duties which allows the government agencies to exploit the full capabilities of the technology to transform its services to the public. Correspondingly, reports from the office of the Accountant General of the Federation highlights that the implementation of electronic revenue collection system under Treasury Single Account (TSA) has brought a significant gain to the country and its economy respectively.

In describing the successes brought by that change, Ahmed (2017), asserted that the government has successfully eliminated the illegal revenue banks account operated by its agencies, which resulted in the consolidation of over 20,000 banks accounts nationwide; which are spread over deposit money banks across the country. This progress brought about transparency and effective way of tracking government revenues, which also led to blocking of all revenue leakages and abuses of public fund, which characterized the public finance management before implementation of TSA. Moreover, Sosarumso, (2015) agrees to the fact that the new Electronic Revenue Collection System under the Treasury Single Account "would plug loopholes in the government's revenue collection system, enthrone a new regime of transparent and accountable IGR management, improve available funds for funding developmental programs, ease the burden of revenue payers and make government contracts more accessible to the people".

Based on the above review, the researcher concluded that the e-collection system is at its infancy level in Nigeria more especially in state-owned tertiary institutions. Therefore, there is inadequate literature documentation on e-collection. Thus, there exist wide research gap to be filled as identified. For that reason, this study is based on literature review. Ample technology adoption research were reviewed in an attempt to identify the possible factors that would influence the intention to use e-collection system among the accounting staff of state-owned tertiary institutions in Nigeria. However, several studies were conducted by previous researchers on acceptance and use of new technology and found many factors that would possibly influence the individual intention to accept or use new technology. For instance, Perceived Usefulness is among the factors that influences the user's intention to accept or use the system as affirmed by Jeong & Yoon, (2013), W. P. Wong, Lo, & Ramayah, (2014), Nwatu & Ezeh, (2017), Hamid, Razak, Bakar, & Abdullah, (2016), Puthur & George, (2016), Panjay, (2017) and Mun, Khalid, & Nadarajah, (2017) respectively. More so, another factor is Perceived Ease of Use as described by Alsamydai, (2014), Sokobe, (2015), Yoon & Esen, (2015), Nguyen, Cao, Dang, & Nguyen, (2016), LAI, (2016), Kabir et al., (2017), Septiani, Handayani, & Azzahro, (2017), and Anggar Riskinanto, Bayu Kelana, (2017). Another major significant key player is Computer self-efficacy; this model has been recognised by the works of Alenezi, Karim, & Veloo, (2012), Al-Haderi, (2013), Zogheib, Rabaa 'i, Zogheib, & Elsaheli, (2015), Rabaai, (2015), Abdullah & Ward, (2016), Bojei & Abu, (2016), and Kabir et al., (2017) respectively. Attitude is yet another crucial factor that influences the individual's intention to accept or use new technology as opined by Kassim & Ramayah, (2015), Yean, Johari, & Sukery, (2015), Omotayo & Adebayo, (2015), Daştan & Gürler, (2016), Luna & Montoro-Ríos, (2017), Hussein, Oon, & Fikry, (2017) and Wang et al., (2017) respectively. And last but not the least is Subjective norm; this concept has also been spoken a lot in works of great researchers like Aboelmaged & Gebba, (2013), Zendehdel, Paim, & Osman, (2015), Ting, Yacob, Liew, & Lau, (2016), Ramos-de-Luna, Montoro-Ríos, & Liébana-Cabanillas, (2016), Handayani & Arifin, (2017), Duc & Quan, (2017) and Ching-Ter, Hajiyev, & Su, (2017) all of the above are factors that can influence individuals intention to accept and use new technology.

Thus, the primary objective of this study is to propose a theoretical framework based on Technology Acceptance Model (TAM) with the extension of three variables namely computer self-efficacy, attitude, and subjective to investigate the degree of influence of each variable on intention to use electronic revenue collection system among the accounting staff of state-owned tertiary institutions in Nigeria. The second objective is to investigate the influence of perceived ease of use, perceived usefulness, computer self-efficacy, subjective norm, and attitude on intention to use e-collection system among the accounting staff of state-owned tertiary institutions in

Nigeria. It is however essential to acknoweldge that previous studies in information system and technology acceptance have determined several factors that influence individual's behavioral intention to use new technology. However, the most popular model used in information system (IS) research by many researchers is technology acceptance model (TAM) Davis (1989). TAM was found to be a robust model for understanding the factors that influence user's intention to use new technology. According to this model, perceived usefulness and perceived ease of use are the most important factors that influence individual's behavioral intention to use a new system or technology. Consequently, previous researchers had also found computer self-efficacy, attitude, and subjective norm as determinant factors that influences system use among the individual's.

THE EMERGING PROBLEMS

Nigeria is a country with a very low information technology ranking, it was ranked 119th out of 139 countries in the global information technology report by World Economic Forum (Baller, Dutta, & Lanvin, 2016). Similarly, an information measuring reports of the International Telecommunication Union (ITU) November 2017 as reported in the Guardian newspaper, Nigeria was ranked 143rd out of 176 countries surveyed on technology growth in 2017, it was ranked 137th out of 175 countries in the year 2016 which show a significant downward shift from its position in the year 2016, even though there is slight increase in percentage from 2.44% to 2.60% in 2016 and 2017 respectively (ITU, 2017). The IDI ranking was based on eleven ICT indicators which was grouped into three clusters: Access, Use, and Skill, the report above showed the level of low adoption of information system in Nigeria.

Take the northern states for instance, they are rated among the underdeveloped states in Nigeria with a literacy rate of 25.08% (National Bureau of Statistic, 2015). This means that the level of uneducated people is higher than that of the educated ones, a population or community with such negative trait may be very difficult to accept the new technology, because the society is dominated by the uneducated people up to 74.92% out of the total population of the states. In respect to above report, it is evident that technology acceptance would be very low among the people. Based on preliminary findings by the researcher through a telephone conversation with some target respondents on their perception and how they would accept this new technology (Electronic Collection System) upon full implemented by the state government. Most of their responses were that the system is new to them, and they are not familiar with the system, and it would take them time to adopt it in their respective places of work. The responses clearly indicated that they are not familiar with the new system, and their level of preparedness to accept the system is low.

BACKGROUND

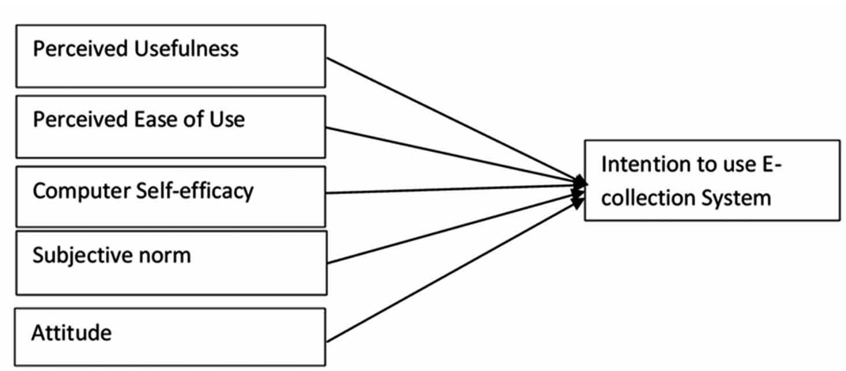
There are quite a number of Information System (IS) theories used in studying users' intention to accept or adopt the new technology. Having reviewed ample literature on the problem under investigation, the researcher discovered different information system theories used in determining the intention of individuals in accepting the use of electronic technology. Most of the theories used by previous researchers are; Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), Decomposed Theory of Planned Behavior (DTPB), Innovation Diffusion Theory (IDT), Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT). Hence, the current study chooses Technology Acceptance Model (TAM). TAM is considered as the best model that explicates the relationship between research variables. The choice of TAM arises as a result of its wide usage and empirical evidence from various studies of individual technology acceptance among information system researchers (Chuttur, 2009).

Furthermore, the simplicity of TAM and the empirical support it has made it widely popular among researchers (Nath, Bhal, & Kapoor, 2013). It is also pointed out that in order to maintain or improve its predictive power, its need additional variables (Dutot, 2015). In order to maintain the tradition, the study selected two variables from other information system theories and merged it with TAM to form the theoretical framework of the study. More so, Technology Acceptance Model is one the famous among the many information system theories and it has been used by different information systems researchers to study behavioral intention of individual in the acceptance of technology and is found to be a strong predictor of intention to use new technology. For example, in electronic collection (Kabir et al., 2017), electronic payment and mobile payment (Panjay, 2017), (Aslam, Ham, & Arif, 2017), (LAI, 2016), (Daştan & Gürler, 2016), electronic banking and internet banking (Kassim & Ramayah, 2015), (Alsamydai, 2014), (Olakitan & Charles, 2014), (Nnaemeka & Ph, 2017), electronic commerce (Yoon & Esen, 2015), (Juniwati, 2014), M. health (Hoque, 2016), electronic government (Hamid et al., 2016), (Moreno Cegarra, Cegarra Navarro, & Córdoba Pachón, 2014), (Rabaai, 2015), and lastly electronic learning (Elkaseh, Wong, & Fung, 2016), (Punnoose, 2012). In essence, TAM was reported to provide the empirical evidence for explaining 40% accuracy in predicting the behavioral intention of an individual for acceptance and usage of the system (Jen, et al., 2009; Legris, et al., 2003)

Originally, TAM was developed by Davis (1989) and was an adaptation of the Theory of Reasoned Action (TRA) and modified specifically to explain the usage and acceptance of Information Technology. TAM comes with two constructs to investigate the individual's intention toward the use of new system or technology. According to Davis (1989) the usage of new system or technology is strongly determined by the user's belief in its perceived usefulness (PU) and perceived ease of use (PEOU). In defining Perceived usefulness, one can say, it is the extent to which a user of information technology system believes that using a new technology system will improve his or her job performance and effectiveness. While Perceived ease of use in the other hand is the degree to which a person's or users of information system believe that using a new technology system will be effortless, that is simple or easy to handle. Davis believes that these two variables determined the user's attitude toward the use of technology, which leads to influencing the behavioral intention and actual use.

As mentioned above, TAM is one among the information system models which is widely used by different researchers to understand the process and adoption of new information system (Sharma & Yadav, 2011). The original TAM has been modified and extended by various researchers like Amin, Rezaei, & Abolghasemi, (2014), Chin & Ahmad, (2015), Althunibat, (2015), Kabir et al., (2017b), to suit a particular context and the problem under study. Notwithstanding, since the e-collection system is a new technology in Nigeria's public service system, most especially in state-owned tertiary institutions. TAM constructs may not be enough to influence the intention of its usage among the accounting staff. Therefore, the present study found that TAM requires an extension to accommodate some constructs according to the need for a certain study. Based on the above, researchers extended the TAM by incorporating the computer self-efficacy variables due to its importance in accepting the new information technology. Also, the study also added the subjective norm variable which may influence the intention to use the new system in the Nigerian context. Hence, the above variables are proposed to be used in this study as discussed hereunder. Figure 1 shows the theoretical framework of this study

Figure 1. Theoretical framework of the study



The above framework is intended to provide evidence on the concept of e-collection system in government agencies, particularly tertiary institutions where evidence is still lacking. It is also proposed to test the relationship between the dependent variable (intention to use the e-collection system) and independent variables (perceived usefulness, perceived ease of use, computer self-efficacy, attitude and subjective norm).

Perceived Usefulness

Perceived usefulness is the degree to which an individual or users of information technology system believe that using a new technology system will improve his or her job performance and effectiveness (Davis, 1989). Perceived usefulness is one among the two-key construct of Technology Acceptance Model (TAM). Previous researches in the field of technology adoption have reported perceived usefulness as a significant factor that influences individual intention to use the new system. For instance, the studies of Jeong and Yoon (2013) which is an empirical investigation on consumer acceptance of mobile banking services in the United States of America. The study used extended technology acceptance model theory and survey questionnaire for data collection. Finding using regression analysis revealed that perceived usefulness, perceived ease of use, and computer self-efficacy had a significant and positive impact on behavioural intention toward mobile banking usage. However, perceived usefulness is the most influential factor explaining adoption and intention. In their study Wong et al. (2014) titled effect of technology acceptance factors on customer e-loyalty and e-satisfaction on internet banking in Malaysia. The study used survey questionnaire for data collection. The study also applied Technology Acceptance Model (TAM) and Theory of Reasoned Action (TRA). Their findings using SPSS and Smart-PLS showed that perceived usefulness positively impacted customer e-loyalty and e-satisfaction.

Recently, evidence from recent study on the intention and adoption of the mobile wallet in India conducted by Panjay (2017) adopted the extended TAM by incorporating perceived quality of service, perceived risk, perceived cost, and trust into the model. The findings revealed that only perceived usefulness has a relationship with future intention to adopt the mobile wallet among the citizens. Notwithstanding, the significant impact of perceived usefulness was also proved in Malaysian context by Mun et al. (2017) in their study, millennials perception on mobile payment service. The work extended TAM by integrating perceived credibility and social influence with its constructs. The study used multiple regression for the analysis and found that perceived usefulness and the external variables have a significant impact on consumer's intention to use mobile payment service. Aboelmaged & Gebba (2013) in their study mobile banking adoption: an examination of TAM and TPB, the researchers used survey method for gathering the study data. Unfortunately, their finding using Cronbach alpha analysis showed the insignificant influence of perceived usefulness on individual behavioural intention to adopt mobile banking. Arguing in the same line, the study of Daştan & Gürler (2016) on factors affecting the adoption of the mobile payment system. Technology Acceptance Model (TAM) and survey method for data collection were used in the study. The study finding affirmed that perceived usefulness has no any significant influence on intention to adopt mobile payment service among the citizen of United States of America.

In the Nigerian context, perceived usefulness was also found as a significant factor that influences individual behavioural intention to use new technology. For instance, the studies of Olakitan & Charles (2014) on assessing the customer intention to use internet banking in Nigeria. The study applied extended Technology Acceptance Model (TAM) by incorporating perceived web security. Findings revealed perceived usefulness as a significant predictor of intention to use internet banking among the citizen. In the same vein, a study conducted in academic environment conducted by Omotayo & Adebayo (2015) on factors influencing intention to adopt internet banking among postgraduate students. TAM and TRA theories were used in the research. Survey method using a questionnaire for data collection was employed. Multiple regression analysis results revealed that there is the strong and significant influence of perceived usefulness and perceived ease of use on the intention to adopt internet banking among the postgraduate students. Likewise, the study of Nwatu & Ezeh (2017) predicting consumer adoption of a point of sale (POS) e-payment system in Nigeria. The study applied questionnaire instrument for data collection. The researchers extended TAM by adding consumer awareness and security operation variables into the model. Findings from SEM-AMOS analysis revealed that perceived usefulness and perceived ease of use had the positive and significant impact of POS adoption in Nigeria. Therefore, perceived usefulness could be a proper and essential factor in the Nigerian context, most especially in state-owned tertiary institution's level to examine its significant and positive influence on intention to use electronic collection system among the accounting staff. In view of the above the following hypothesis is postulated:

H1: Perceived usefulness significantly influences intention to use electronic collection system among the accounting staff of state-owned tertiary institutions in Nigeria.

Perceived Ease of Use

Perceived ease of use is an expression referring to the effortless, simple and easy to handle and use new technology. It refers to the extent to which a person or users of information system believe that using a new technology system would be easy.

Perceived ease of use is also one among the two-main construct of Technology Acceptance Model (TAM). For decades, quite a number of researchers had paid attention to perceived ease of use being a significant factor in intention to accept new technology among the users. A study conducted by Alsamydai (2014) in Jordan on the adoption of the Technology Acceptance Model (TAM) to use mobile banking services supports that. The study used questionnaire instrument for data collection. The finding from Cronbach alpha reported perceived ease of use to have a strong and significant influence on intention to use mobile banking services, the finding of this study showed and signify how easy the system is. In that context, according to a study by Sokobe (2015) on the factors influencing the adoption of electronic payment by small and medium enterprises hotel in Kenya. Survey design method and UTAUT theory were used in the study. The study findings revealed that perceived ease of use is the main factor that influences the adoption and intention to use electronic payment system. Furthermore, Yoon & Esen (2015) in their studies on exploring factors that affect usefulness, ease of use, trust, and purchase in Korea. TAM was extended in the study by integrating trust with its construct. The method used for data collection is by using email, survey website, and offline. Findings from structural equation model showed that perceived ease of use and trust has a positive and significant effect on the behavioral intention to shop online. Additionally, LAI (2016) in his study in ASEAN context on measuring the consumer's intention to use single platform e-payment used TAM as theoretical based. The study used survey method for data collection, and the statistical result from structural equation model affirmed that perceived ease of use has positive significant influenced on the consumer intention to utilize a single platform e-payment system.

In contrast to the above, a study by Daştan & Gürler (2016) on mobile payment system adoption in the United States of America, TAM was also extended in their study with perceived trust and perceived mobility. Unfortunately, the statistical result of the study revealed the insignificant influence of perceived ease of use on intention to adopt mobile payment service. Likewise, Aslam et al. (2017) in their study measuring consumer behavioural intention toward the mobile payment services in Pakistan. Extended Technology Acceptance Model was used in the study by incorporating subjective norm, perceived compatibility, and perceived security. The empirical result from structural equation modelling analysis showed perceived usefulness, perceived compatibility, and subjective norm are significant predictors of consumer's intention toward the use of mobile payment. Unluckily, perceived ease of use and perceived security was found to be insignificant factors in the study. On the other hand, the significant influence of perceived ease of use was also buttressed in the Nigerian context. This was contained in the empirical studies conducted by Kabir et al. (2017), Omotayo & Adebayo (2015), and Nwatu & Ezeh (2017) Therefore, perceived ease of use may possibly be a significant factor that influences the intention to use electronic collection system among the accounting staff of the state-owned tertiary institution. Hence, the following hypothesis is formulated:

H2: Perceived ease of use significantly influences intention to use electronic collection system among the accounting staff of state-owned tertiary institutions in Nigeria.

Computer Self-Efficacy

According Bandura (1986), computer self-efficacy is someone's belief in his/her ability to perform a specific task or behavior. Similarly, Compeau and Higgins (1995) mentioned that, computer self-efficacy is the user's ability and perception to use computer and other information technology system in conducting a particular task. Furthermore, they provide three dimensions of computer self-efficacy. The dimensions are magnitude, strength, and generalization. The magnitude of computer self-efficacy is the extent to which individuals perceived that using a computer will allow them to perform a difficult task. The strength of computer self-efficacy refers to the level of confidence of an individual to carry out a particular task with a computer. Generalization of computer self-efficacy refers to the perception or ability of a person to use different computer components to complete a specific task. Therefore, a person who has high knowledge of computer may have a higher intention to use the system than a person who has no knowledge of it or little knowledge. Computer self-efficacy has been studied in different context, and there are several studies that support the influence of computer self-efficacy on behavioral intention. For instance, the effect of computer self-efficacy was proved in the study of Al-Haderi (2013) on the acceptance of new information technology among the citizen of Yemen. Survey questionnaire for data collection and extended TAM was used. The study provides empirical evidence from SEM-AMOS analysis for the positive and significant effect of computer self-efficacy on the behavioral intention to use new technology. Moreover, in the educational sector, the impact of self-efficacy was also observed in the study of Zogheib et al. (2015) on university student perceptions of technology use in mathematics learning. The study applied extended TAM and questionnaire survey for data collection. Findings from structural equation modeling showed that computer self-efficacy, user satisfaction, subjective norm, ease of use and perceived usefulness have a positive and significant impact on student behavioral intention to adopt and use technological tools in the mathematics classroom. On the same note, in a study conducted in the United Kingdom by Abdullah & Ward (2016) on developing a general extended TAM for e-learning system by analysis. Computer self-efficacy was found to be the best predictor of perceived ease of use and perceived usefulness on the student intention to use electronic learning. In addition, the study of Bojei & Abu (2016) on intention to use social media tools among business customer practitioners. TPB theory and questionnaire for data collection utilized in the study. The analysis result from Pearson Correlation analysis revealed computer self-efficacy as a strong factor affecting the intention to use social media tools.

Conversely, the study of Cheng, Hung, Tsai, & Chen (2016) on the adoption and intention to use mobile phone application is also significant in this discussion. The researchers used survey questionnaire method and DTPB theory. Surprisingly, their empirical result from SEM analysis showed the insignificant influence of self-efficacy on the intention to download mobile phone applications. In the same vein, finding of Puthur & George (2016) showed computer self-efficacy as an insignificant factor in intention to re-use electronic tax filing system in India. The extended TAM and Smart-PLS for data analysis was applied in the study. On the other hand, empirical evidence from Nigeria affirmed the significant influence of computer self-efficacy. This was proved in a recent study conducted by Kabir et al. (2017) on an examination of factors that influence employees' behavioural intention to use electronic revenue collection system in public hospitals. The researchers used extended TAM and survey questionnaire for data collection. The statistical result from Smart-PLS software analysis reported the significant influence of computer self-efficacy on intention to use electronic collection system among the federal government hospitals workers in Nigeria. Additionally, a recent work conducted in Nigeria by Nnaemeka & Ph (2017). The study used the theory of Compeau and Higgins (1999) and questionnaire for data collection. Findings from multiple regression analysis revealed that computer self-efficacy significantly and positively predicted consumer satisfaction to use electronic banking. Hence, based on the above suppositions computer self-efficacy may be an important and significant factor to influence the accounting staff of state-owned tertiary institutions in Nigeria to use the e-collection system. Therefore, the following hypothesis was formulated:

H3: Computer self-efficacy significantly influences intention to use electronic collection system among the accounting staff of state-owned tertiary institutions in Nigeria.

Attitude

Attitude refers to person's positive or negative thinking to assess or accomplishes target behavior (Fishbein, & Ajzen, 1975). Findings from prior research provided empirical evidence that supports the significant influence of attitude toward intention to use new technology. This was contained in a study, measuring the intention to continue using internet banking among Malaysian conducted by Kassim & Ramayah (2015). The study used questionnaire instrument for data collection, TAM was also employed as a theoretical based of the study. Their empirical result using SPPS and PLS analysis revealed attitude as a significant factor that influences intention to continue using internet banking among the citizens. In addition, the study of Yean et al. (2015) on intention to return to work among the SOCSO employees in Malaysia. The researchers used TPB theory and questionnaire survey method in the study. The study applied PLS software for data analysis, and the finding showed that attitude significantly influences intention to return to work among the respondents. Equally, on the usage of the mobile payment system in the work of Daştan & Gürler (2016) conducted in the United State of America. TAM was extended in the study by incorporating perceived trust and perceived mobility. Survey method using questionnaire was applied and the empirical finding from SEM analysis revealed a positive effect of attitude, perceived trust and perceived mobility on the adoption of the mobile payment system. In the same vein, a study by Luna & Montoro-Ríos (2017) in Brazil on NFC technology for mobile payment. Questionnaire instrument was used as a means for data collection. Technology Acceptance Model (TAM) was extended with personal innovativeness. Structural equation modeling analysis reported that attitude is determinant for future intention to use NFC technology for payment among the Brazilian.

On the other hand, Priyangika, Perera, & Rajapakshe (2016) in their empirical study conducted on the investigation of customer attitude and intention towards internet banking in Sri-Lanka. The researchers employed TAM and TRA. Survey method using questionnaire was also used in the study. Surprisingly, findings from multiple regression analysis reported that attitude insignificantly influences intention to use internet banking. Moreover, significant influences of attitude were found in the Nigerian context. This was reported in a study conducted in the academic environment by Omotayo & Adebayo (2015) on factors influencing intention to adopt internet banking among the postgraduate student. TAM and TRA theories were used in the research. Survey method using a questionnaire for data collection was employed. Multiple regression analysis results revealed that there is the strong and significant influence of attitude on the intention to adopt internet banking among the postgraduate student. Additionally, a study by Olakitan & Charles (2014) assessing the customer intention to use internet banking in Nigeria. The study extended technology acceptance model (TAM) by incorporating perceived web security. The study used the questionnaire as a tool for data collection. Empirical finding using regression analysis revealed that attitude had a positive effect on intention to use internet banking among the citizen. Therefore, in view of the above presuppositions attitude may possibly be a positive and significant variable in Nigeria, specifically in state-owned tertiary institutions with the intention to use electronic collection system among the accounting staff. The following hypothesis is the hereby formulated:

H4: Attitude significantly influences intention to use electronic collection system among the accounting staff of state-owned tertiary institutions in Nigeria.

Subjective Norm

Subjective norm refers to the perception of individual that people around him/her or that are important to him/her think that he/she should perform or not perform a certain behaviour (Fishbein, & Ajzen, 1975). Subjective norm is also referred to an individual perception opinion of others on whether persons should perform or not perform the behaviour in question. Evidence from existing literature shows that subjective norm has been found to influence user behavioural intention in various research of information technology. In their research, Zendehdel et al. (2015) measuring the students' behaviour on online purchase in Malaysia found subjective norm among the influential factors that influence students' intention to purchase online. The study applied pilot questionnaire method and Diffusion Innovation Theory (DIT). The analysis was done with Structural Equation Modelling. Similarly, the study of Ramos-de-Luna et al. (2016) agreed to the fact that subjective norm is the determinant of future user intention to use NFC technology as a payment system. The researchers employed questionnaire method and extended TAM in the study. Smart-PLS software was used for data analysis. In addition, a recent study conducted in China by Duc & Quan (2017) on intention to use a credit card. The online survey method was applied to data collection. Technology Acceptance Model (TAM) and Theory of Planned Behavior was adopted in the research. Regression analysis result revealed that subjective norm is among the most determinant factors influences intention to use credit card among Vietnamese. Moreover, the work of ChingTer et al. (2017) affirmed the positive and significant impact of subjective norm on behavioural intention to use e-learning among the students in Taiwan.

Contrarily, the study of Danurdoro & Wulandari (2016) on the impact of perceived usefulness, perceived ease of use, subjective norm, and experience towards student intention to use internet banking. The study extended TAM with subjective norm and experience variables. The survey method was applied in the study. Unfortunately, the study provides empirical evidence from multiple regression analysis of the insignificant influence of subjective norm on the student intention to use internet banking. Arguing the same line, the study of Leonard & Jones (2014) conducted in United State America on the acceptance of consumer to consumer e-commerce. The study used descriptive survey method. TAM and TPB theories were applied in the research. Surprisingly, regression analysis result showed the insignificant influence of subjective norm on one's intention to use consumer to consumer e-commerce. However, in Nigerian context evidence of the significant influence of subjective norm was also buttressed. For instance of Omotayo & Adebayo (2015) on factors influencing intention to adopt internet banking among the postgraduate student. TAM and TRA theories were used in the research. Survey method using a questionnaire for data collection was employed. Multiple regression analysis results revealed that there is a significant influence of subjective norm on the intention to adopt internet banking among the postgraduate student. Hence, in line with the above presumption, the subjective norm may possibly be a significant factor that would influences intention to use electronic collection system in state-owned tertiary institutions in Nigeria. The following hypothesis is formulated:

H5: Subjective norm significantly influences intention to use electronic collection system among the accounting staff of state-owned tertiary institutions in Nigeria

SOLUTIONS AND RECOMMENDATIONS

This study investigated the influence of perceived ease of use, perceived usefulness, computer self-efficacy, subjective norm, and attitude on intention to use e-collection system among the accounting staff of state-owned tertiary institutions in Nigeria. Evidence of findings of the previous research revealed quite a number of challenges and problems linked with the manual collection of revenue which includes poor tracking of internally generated revenue and other collections, leakages of government revenue and inflows, non-remittance of collected revenue by collecting entities, mismanagement of collected revenue and other incomes and lack of good strategy for proper record keeping. These issues could be drastically reduced with the introduction and full implementation e-collection system. Firstly, the e-collection system would help to prevent the larger proportion of revenue theft, diversion of collected revenue, and all kind of corrupt practices associated with the revenue collection. Secondly, it would significantly increase Internally Generated Revenue (IGR) to the government, ensuring the availability of fund for funding government projects and programs, and it would also help to ease the revenue payer burden for carrying cash. Lastly, it will also ensure transparency and accountability in the revenue generation and collection process as it reduces human interference and by extension, human manipulations and revenue leakages would be blocked, and risks are also mitigated. Importantly, all transactions relating to items of expenditure and spending can be tracked and checked, thereby, reducing the corrupt practices in the use of allocated funds for infrastructure development and maintenance of existing buildings in tertiary institutions in Nigeria. Hence, authorities concerned must find time and study the ways and strategies to stimulate the staff to use the e-collection system in the future.

FUTURE RESEARCH DIRECTION

Previously, research on technology adoption for individual users in Nigeria have been conducted by different researchers, yet evidence of e-collection system is still lacking being a new system in the country. This apparently indicates lack of literature on acceptance and adoption of the e-collection system in public sector organisation most especially in tertiary institutions. Therefore, this study proposed a theoretical framework to give the future researchers a clue to empirically test the influence of e-collection system among the accounting staff of state-owned tertiary institutions. However, besides tertiary institutions, there is a need to conduct a similar research in other public-sector organisation due to their contextual differences and organisational setting. Consequently, since the e-collection system is a new system in the Nigerian context it would be importance to conduct similar researches in future until the system is generally accepted in a government organisation. Also, it would be interesting if future researchers would focus on different factors that were not included in this research.

CONCLUSION

At the moment, there is no evidence of documented literature on e-collection system in the Nigerian context, especially in tertiary institutions. Therefore, This study investigated the influence of perceived ease of use, perceived usefulness, computer self-efficacy, subjective norm, and attitude on intention to use e-collection system among the accounting staff of state-owned tertiary institutions in Nigeria. The research was conducted based on previous technology adoption research within and outside Nigeria to identify the possible factors that could influence the intention to use the e-collection system among the accounting staff in state-owned tertiary institutions in Nigeria. The study used Technology Acceptance Model as its baseline and extended it with computer self-efficacy and subjective norm. The extension leads to better understanding and explanation of the theory by applying it to factors that influence intention to use e-collection system among the accounting staff. The study would contribute to existing literature on the application and the theory in the accounting information system in tertiary institutions in Nigeria. The study emphasises computer self-efficacy and subjective norms as important factors in the use of e-collection in tertiary institutions in Nigeria. In terms of practical contribution, the study would contribute to the body of knowledge through the provision of evidence from developing country like Nigeria, where literature is lacking on accounting information system. Furthermore, it is expected that finding from the study would also be beneficial to policymakers in the country because it would provide a policy guideline on TSA implementation in relation to the tertiary institutions and specifically on e-collection component of the TSA.

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KEY TERMS AND DEFINITIONS

Attitude: Is defined as an individual's positive or negative thinking to evaluate or perform the intended behavior.

Computer Self-Efficacy: Is individual's belief in his/her ability to perform a specific task or behavior.

E-Collection: This is an electronic means of collecting data or information using machine- or software-aided mechanisms.

E-Collection System: E-collection system is a computer-based collection system that is designed to improve the effectiveness and efficiency of revenue collection through the means of an electronic collection system.

Perceived Ease of Use: Is defined as the degree to which a person's or users of information system believe that using a new technology system will be effortless.

Perceived Usefulness: Is defined as the extent to which an individual or users of information technology system believe that using a new technology system will improve job performance and effectiveness.

Subjective Norm: Is the extent to which a person or the individual perception that most people who are important to him think that he/she should perform or not perform a certain behavior.

Treasury Single Account: TSA is a combination of government bank accounts to enable the consolidation and utilization of government cash resources.

Chapter 2
Throughput Accounting: Decisional Informational Support for Optimizing Entity Profit

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ABSTRACT

This chapter illustrates some aspects of the theoretical and practical implications of TA for optimizing the profit of an entity. The main objectives of this chapter are to present a comparative analysis of the managerial implications between throughput accounting and some managerial accounting methods, hybridization attempts with other methods, as well as its advantages and limitations in the current context of implementation and profit optimization an economic entity. Based on the literature, the authors present the main approaches and the historical evolution of the throughput accounting, the principles of TA and TOC, as well as a comparative analysis between traditional accounting and TA. The chapter ends with the authors' conclusions on throughput accounting and its implications on management accounting methods, opening up new directions of future research aimed at highlighting various theoretical and methodological aspects encountered in academia or business environment.

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INTRODUCTION

Over the past 40 years, new philosophies such as Throughput Accounting (TA) or Theory of Constraints (TOC) merged to create new alternatives to monitor and measure the performance of manufacturing companies. According to their historical evolution, the two approaches go from different concepts, but the specialists identified a general framework of integration and merging that opened a new stage in understanding some aspects that were later ignored in substantiating managers' decisions. Comparative analyzes at the level of implementation and implementations of the integrated framework of the two approaches have demonstrated their viability as an informational and decision support. Starting from the general framework of traditional cost accounting, the ways to create a common framework for integration and hybridization of the two approaches are presented and analyzed with some of the most discussed managerial accounting methods and techniques such as Activity-Based Costing (ABC) Direct-Costing (DC), Six Sigma, Lean Accounting. It also analyzes and presents the opinions of the specialists on the viability of their integration, the impact of the managerial implications, but also the opinions and conclusions of the authors of this chapter. The main objectives of this chapter are to: (1) *identify and clarify aspects related to Throughput Accounting (TA) and Theory of Constraints (TOC);* and (2) *identify integrated systems of accounting for Throughput Accounting and managerial implications which involves them.*

BACKGROUND

Throughput Accounting (TA): Conceptual Approaches

Throughput Accounting (TA) is an integrated, principle-based system and used in Theory of Constraints (TOC) management accounting and provides managers with effective decision-making information support to optimize an entity. As an alternative to cost accounting, Throughput Accounting (TA) is based on the identification of limiting factors in order to achieve its objectives (performances).

The international literature refers to two orientations related to the emergence and development of the concept of Throughput Accounting: that of Galloway and Waldron and that of Goldratt.

Waldron (1988) contrasts the fundamental concepts of conventional cost accounting for the "new principles of throughput accounting". This thinking is based on the idea that "products are not profitable or unprofitable, businesses are" (Waldron, 1988). The basic concepts of conventional cost accounting are: (1) the existence of direct (variable) and indirect (fixed) costs; (2) the final cost of the product is achieved by summing up all the components of the costs and by deducting the result from the selling price the relative profitability of the product is determined; (3) inventory (stock) is a good (asset) and material processing increases its value; (4) the reduction in direct cost components increases profit.

The new principles of production capacity accounting are: (1) no distinction between direct and indirect costs; (2) the contribution of each product to profitability is eliminated and replaced by the enterprise's financial earnings ratio; (3) inventory is not a good (asset) but the product of a manufacturing failure that prevents profits; (4) profit is a function of material costs, manufacturing costs and throughput accounting (Waldron, 1988). In other words, all costs are fixed in the short term and what matters is the rate at which resources are applied to the materials to generate sales.

Galloway and Waldron (1988a) have begun implementing the concept of Throughput Accounting by identifying a new language to replace traditional concepts such as: direct or indirect cost allocation, size of the manufacturing batch, and adding value in stock. Methods such as JIT, TQM, and CIM have led to a change of classical production methods, and other conceptual approaches have emerged in terms of manufacturing response time, inventory, profit, and quality. The authors use a replacement of the notion of operational expenditure (used by Goldratt) with the concept of Total Factory Cost, both terms being the same as meaning and content.

Galloway and Waldron (1988b) define the TA ratio according to which products can be cataloged thus:

$$\mathrm{TA} = \frac{\text{Return per Factory Hour}}{\text{Cost per Factory Hour}} \tag{1}$$

where:

$$\mathrm{VOF} = \frac{\text{Sale Price} - \text{Material Cost}}{\text{Time on Key Resource}} \tag{2}$$

$$\mathrm{COF} = \frac{\text{Total Factory Cost}}{\text{Total Time Available on Key Resource}} \tag{3}$$

Later, Galloway and Waldron (1989a) build an overall TA measurement key:

$$\text{Primary Ratio} = \frac{\text{Throughput}}{\text{Total Factory Cost}} \tag{4}$$

If T/TFC> 1, then the operation is profitable.
If T/TFC <1, then the operation is unprofitable (doomed to failure).

Starting from performance-based thinking, the authors look for a better way of measuring working time, totally opposed to departmental sales, which implies forms of interdepartmental transfer pricing.

$$\text{Department throughput} = \text{Standard minutes of throughput x Budgeted departmental per minute} \tag{5}$$

Galloway and Waldron (1989b) note that there are several production facilities in complex production environments, and the focal point must be identified within them.

$$\text{Cost per focale point minute} = \frac{\text{Total facility cost}}{\text{Focal point capacity}\left(\text{minutes}\right)} \tag{6}$$

In conclusion, the cost of products can be calculated based on the principles of Throughput Accounting, as follows:

$$\text{Production cost} = \text{Time required on focal the point x Cost focal point (minute)} + \text{Material cost} \tag{7}$$

Costs of products based on throughput accounting penalize those products that considerably use focal points, while products that are not focused on focal points cost as much material as possible. Waldron (1994) states that the principles of Throughput Accounting do not lead to the calculation of the cost of the product and suggests ABC to be more appropriate for calculating the cost of the product (Drugdale and Jones, 1996). Waldron (1994) also suggests that companies need both ABC to calculate product costs and Throughput Accounting to tell how many products can be made and how quickly.

The concept and principles of Throughput Accounting (TA) appear in some manuals and are presented, incorporated and promoted by CIMA. Thus, Throughput Accounting is defined as: a performance measurement method that refers to production and other costs of production capacity. The cost of throughput accounting products refers to the use of key resources by various products (CIMA, 1991; Bromwich and Bhimani, 1994).

The principles of Throughput Accounting are as follows: (1) The principle of value creation of products, services or works executed at the time of sale; (2) The principle of redistribution of resources in the places of restriction for maximization;

(3) Emergency Principle (management declarations); (4) Principle of comparability of approaches when calculating costs; (5) Principle of integrity (integration); The principle of continuous improvement of accounting and analysis systems.

Throughput Accounting (TA) is not considered either cost accounting or production accounting as it does not allow the allocation of indirect costs (fixed or variable) to manufactured products or services provided by an entity. Throughput Accounting claims that only direct material costs are included in the total cost of the product and that all other costs are fixed and cannot be identified on products (Goldratt and Cox, 1992).

At present, Throughput Accounting is considered as a smart business method used to increase performance and maximize entity profits. By concentrating on generating additional production capacities (products and services), Throughput Accounting attempts to increase their speed by taking into account the constraints to which the entity is subjected internally or externally. Used as an internal reporting tool, Throughput Accounting proves its effectiveness where needed, and the entity as a whole contributes to substantiating and making better management decisions based on three critical monetary variables: production capacity, inventory and operational expenditure.

At the time of cost accounting, labor costs held the highest percentage of the total cost of production. Labor time measurement systems were rudimentary at that time, which is why accountants have focused their attention on the efficiency of administrators' working time as the most important variable resource. Under these conditions, worker wage costs became more fixed than variable, and wage management costs were more variable than fixed. Under current circumstances, work efficiency leads to decisions that only harm organizations (Goldratt and Cox, 1993).

Throughput Accounting eliminates dependence on cost accounting standards in terms of efficiency and work efficiency in management practice. Accounting for constraints as a component of the development of Throughput Accounting emphasizes the role of constraint in making managerial decisions. On the one hand, Theory of Constraints (TOC) had a significant impact on the production programming theory and had many similarities to JIT production (emphasis was placed on stock cuts) and, on the other hand, advocates stockpiles to protect the locking facilities (Drugdale and Jones, 1996).

Calculation of net profit is based on production capacity, less operating expenses or *Net profit = Throughput Accounting - Operating Expenses* (Goldratt and Cox, 1993). Production capacity is defined as sales revenue less revenue from stored production and services purchased from outside the entity and which refers to products sold or *Production capacity - Sales revenue - Total variable costs*. Operational expenses cover the conversion cost, including the salary costs of the staff employed. Thus, return on investment (ROI) is calculated by dividing net return on investment, where inventory includes inventories and machines, and *ROI = Net profit/Investment*.

Other authors consider that these definitions of Throughput Accounting are too vague to be operational and replace the term inventory with the term asset (Noreen et al., 1995), while other bodies define production capacity as income less costs total variables.

An extended version suggested by Goldratt, but which is more of a business-related discussion than applicable at the operational level, takes into account the following: (1) investment valuation (if the improvement of the blocking facility increases the total production of the plant: improving non-blocking does not offer such a benefit); (2) performance with time data (input value multiplied by the number of days remaining); (3) excess inventory (transfer value multiplied by excess inventory days); (4) local operating-expenditure measures (differences between planned and actual expenditure) (Goldratt, 1995).

In contrast to those proposed by Goldratt, the results of studies by Noreen et al. refers to: (1) Internal monthly data transfer reports; (2) The inventory is converted (the amount of material distributed through the inventory); (3) Productivity (transfer divided at operational expense); (4) Productivity per employee (debit divided by number of employees); (5) The amount of working capital per dollar; (6) incremental process with incremental operational expenditure; (7) Expected inventory excess (days in dollars) (Noreen et al., 1995).

Theory of Constraints (TOC): Steps and Interconnections

Some authors state that "TOC is based on the principle that there is a common case for many effects, the phenomenon we can see is the consequences of profound causes. This principle leads us to a systemic image of the company" (Corbett, 1997). In other words, the essence of the theory of constraints is to understand the existence of system constraints, where the company is analyzed as a system and consists of a group of dependent elements. Therefore, the overall performance of the system depends on the efforts of all elements and the lack of performance is negatively affecting the whole system. Other authors define the constraint as any resource of the system (people, equipment, devices, measuring instruments, etc.) while the constrained resource is occupied throughout its availability (Corrêa and Gianesi, 1993).

Stages running according to the Theory of Constraints and on which measurement instruments have been created are the following:

1. *Identifying system constraints.* At this stage we try to diagnose the situation encountered by identifying the constraint. To solve this problem, we will use

the Actual Reality Tree (ART) diagram, linking cause and effect, connecting all system problems, and identifying constraints, that is, what interferes with the organization to improve its performance (Goldratt, 1994).

2. *Exploiting system constraints*. In most cases, constraints are represented by company policies or constraining policies that are seen as chronic diseases caused by some conflicts in the past that need to be eliminated. To solve this problem, we will appeal to the Dispersion Diagram (DD), which consists of 5 entities (Goldratt, 1994):

[A] The objective, which is the opposite of constraint in the ART diagram; [B] The necessary condition for achieving the objective; [C] Another necessary condition for achieving the goal; [D] An essential requirement to achieve the required condition (B); [D'] An essential requirement for achieving the required condition (C). [D] and [D'] are mutually exclusive entities, that is, it is not possible to have both at the same time, but perception says we both need to reach the goal.

In view of identifying other real-performance improvement solutions, we need to build the Future Reality Tree (FRT) that allows us to search for the negative branches, but also to identify the side effects of the ideas under development, to eliminate them the final solution (Goldratt, 1994).

3. *It subordinates everything to the above decision*. On the basis of the conclusions drawn from the FRT diagram, the strategy and its implementation duration are formulated. In order to solve this problem, the Pre-Requirement Tree (PRT) will be developed, focusing on the definition of intermediate objectives within the logical steps required to implement FRT (Goldratt, 1994).
4. *Lifting system constraints.* At this stage, the Transition Tree (TT) will be established, which defines what actions should be taken and in what order, in order to reach the intermediate objectives of the PRT. Thus, TT identifies which actions are necessary and sufficient to change the reality (Goldratt, 1994).
5. *It returns to the first stage, but it is not allowed to inertia become the constraint of the system when the constraint has been eliminated*. In big companies there are no physical constraints but constraining policies and it is the inertia that limits the performance of its system. Thus, a process of continuous optimization of constraints was created on the basis of the cooling Theory of Constraints (Goldratt, 1994). The authors of this process have developed a software called OPT that applies the concept of constraint theory. OPT has been defined as a computerized technique that helps scheduling the manufacturing system at a pace driven by the most heavily loaded devices, i.e. blocking. If the rate of activity in any part of the system exceeds that lock, the items will be

manufactured without being used. If the work rate drops below the lock rate, the whole system is underused (Slack et al., 1997).

In the short term, the effects are negative and lead to the removal of traditional accounting information on improving throughput accounting. Here, a number of factors have to be considered, such as: (1) immobility in the financial reporting requirements and in the infrastructure of costing systems; (2) shift to marginal costs; (3) degradation of accounting as a central management function (Dugdale and Jones, 1998). In the long term, the effects may be positive if accountants develop techniques aimed at encouraging or strengthening managers' skills in terms of production capacity. This would give managers an additional insight into traditional accounting, helping to strengthen conventional thinking on TOC and TA.

Although the two concepts of Throughput Accounting (TA) and Theory of Constraints (TOC) have some similarities, there are still clear differences in the thinking modes of the two presented guidelines. Thus, Waldron and Galloway are trying to create new ways of measuring production capacity in order not to provide erroneous or confused information to managers or decision-makers within companies, while Goldratt highlights the negative effects of using optimal local measures. Each of the two orientations has tried to impose itself on the world of accounting, but their attempts are very weak, especially when it comes to the thinking of experienced accountants.

Of all these attempts, practice has shown that the ABC method is preferred as a methodology for calculating product costs. For those companies that need a fundamental transformation in the manufacturing industry, Theory of Constraints offers just that alternative to conventional management approaches through a comprehensive and far more compelling approach. Changing a paradigm can lead to changing perceptions, values in relation to production, abandoning old practices and replacing them with new ones. Our advice is that only those companies that tend to disappear or are on the verge of bankruptcy adopts the Theory of Constraints in this paradigmatic way.

Throughput Accounting and Traditional Cost Accounting

Traditional cost accounting is based on assumptions that were once valid, but they are no longer a reflection of reality, and managers need real-time information to substantiate their decisions. The reflection of the differences between traditional cost accounting and throughput accounting is presented in Table 1.

Based on the above, we find that in traditional cost accounting, direct labor costs are directly and positively correlated with the production process, considering each resource to be of the same quality and ignoring any constraint. TOC focuses

Table 1. Conceptual comparison between traditional cost accounting and throughput accounting

The concepts of traditional cost accounting	The concepts of throughput accounting
Classifies costs in: direct (variable) and indirect (fixed).	Does not use cost classification in: direct and indirect.
Total cost of production is determined by summing up all costs (direct and indirect). The result or profitability of the product is determined as the difference between the sales revenue and the total cost of production.	The profitability of a product is determined by calculating a rate at which the entity earns money rather than the profitability of each product.
Inventory is an asset that increases the value of materials.	Inventory is not an asset but the result of a de-synchronization of the manufacturing process that prevents profits.
Reducing cost components directly contributes to profit growth.	Profit is a function of the cost of materials, total cost of manufacturing and productivity.

Source: Processing and Adaptation after Waldron (1988).

on understanding constraints in maximizing profitability and the importance of analyzing constrained resources. This productivity can only be achieved through cooperation between all departments of the entity and sustained involvement in identifying constraints. Ignoring constraints leads to the inability to accurately determine the real impact each department has on achieving the overall performance of the entity, and this further leads to ineffective decisions that may harm its interests. If the entity's management takes into account the constraints in its decisions, then productivity will also increase.

Traditional cost accounting determines accountants and decision-makers to find ways to allocate indirect (fixed) costs to products. By treating materials, wages and general expenses as variable costs, the reality is that the general and wage costs are typically fixed at a fixed production volume. Thus, wage costs and general expenses are considered as expenses (fixed) of the period. Upon receiving an additional order, an entity does not hire additional workers but cancels out of current employees or opens new production sites by closing down old ones. Under such conditions, the number of employees remains the same, as are their expenses, but managers' decisions are erroneous and ineffective.

Traditional cost accounting encourages excessive inventory creation (stocks), even if sales at times are lower, consuming money at a time when the entity may not. The main purpose of manufacturing is to produce to sell, and not to store. An entity's managers may ignore this purpose, especially when wage and overhead expenses are included in inventory (storage). Deferring wage and overhead expenses to the sale of products leads to a relative profitability of the entity, but eliminating excess inventory can contribute to perceiving a high profitability of the entity.

Integrated Systems or Ways of Hybridizing Managerial Accounting

ABC and TA/TOC

Methods of hybridizing managerial accounting have been recorded throughout history, but one of the most recent is ABC and TA/TOC (Alves and dos Santos, 2005). Apparently, the two approaches are somewhat opposed, but specialist studies have indicated that there are common points between the two approaches. These issues have been analyzed taking into account their relevance to a company's business and the main areas of conflict between them. Thus, some authors have identified a number of successes in adopting and implementing the two approaches: improving product quality for mixed decisions (Spoede et al., 1994); using mixed integer programming (mixed integer programming), the integrated mathematical model has provided substantial higher revenues than the ABC model and a slightly higher income than the exclusive TOC based model (Kee, 1995); the use of TOC for short-term decisions, and ABC for long-term (Briciu et al., 2012; Cokins et al., 2012) and direct-costing decisions for short and long-term decisions (Fritzsch, 1997); creating a conducive environment for continuous process improvement (Gupta et al., 1997); requires less effort than traditional ABC implementation and provides more information than the standard TOC approach (Demmy and Talbott, 1998); remarkable improvements in a company's performance after TOC implementation (Mabin and Balderstone, 1998); successful use in increasing ABC performance after TOC implementation (Kaplan, 1989a, 1989b).

Other authors and specialists expressed their reservations about the combination and implementation of the two approaches, ABC and TA/TOC: when the TOC approach becomes invalid and ABC becomes the right methodology? (Holmen, 1995); ABC and TOC should be adopted on a department-department basis, where the distinction is made between the intensive staff department and the intensive machinery department (Campbell et al., 1997). The main problem is the compromise that arises between the extent to which the two approaches are embedded and the ease of their integration. We note that TOC emphasizes constraints and denies the need for product cost information. Specialist studies have shown some improvement in achieving a company's performance after TOC implementation, but also some inadequacies. At a closer look, we find the following differences between the two approaches (Table 2):

Table 2. Defining features of ABC and TA/TOC

Method	Defining features
Activity-Based Costing	Indirect costs (by activity) are allocated to products using cost drivers. The cost of the products is composed of: direct material costs, direct wage costs and a percentage of indirect costs (by activity) Uniform gross contribution = sales revenue - total costs (materials, wages, costs by activity) Inventory is considered an asset
TOC/TA	The cost concept of the product is not used. Production capacity = unit price - raw material - other costs that vary for each production unit (e.g. performance-related wages) All costs less raw material costs and other costs that vary per unit of production are considered operating costs Capacities per unit of constraint: the sales price less the cost of the raw material (or other direct costs), divided by the constraint units used to make the product Inventory is considered a money-related debt

Source: Authors processing

Absorption Costing/Direct-Costing and TA

Since Jonathan N. Harris (1936), considered being the father of the direct costing concept, a number of specialists have come up with proposals to replace the term "absorbent costs" with the term "direct" costing. Some authors proposed to unite the two concepts (Rayburn, 1965), while others still preferred the term "absorbing costs", adding to the production cost all the processing costs (Shillinglaw, 1961). The Absorption Costing method treats all the entity's indirect manufacturing costs as product costs. On the other hand, Direct-Costing includes in the cost of products only the variable elements of indirect costs, treating fixed costs as a general charge of all combined operations and not against a particular segment of operations (Shillinglaw, 1961). In other words, fixed costs are considered as costs of the period.

According to specialists' data, a very careful analysis between the variable costing method and the throughput accounting cannot conclude generally valid or preferential aspects in the short or long term (Novák et al., 2016). On closer inspection, we can see the following defining features of the three approaches (Table 3).

The results of the analyses show the importance of accurately allocating costs and making decisions based on relevant information from management accounting (Briciu et al., 2013). In the case of throughput accounting, the allocation to direct costs (total variables) is insufficient to make effective decisions. In comparison, the variable costing method also allocates the other variable costs (sales) thus becoming a more appropriate method for making decisions.

Table 3. The defining characteristics of the absorption/variable and TA/TOC costs

Method	Defining features
Absorption Costing	Indirect costs (fixed and variable) are allocated to products Manufacturing costs are recorded as inventory expense (cost of goods sold) Administrative and sales expenses (fixed and variable) are recorded as costs of the period The cost of absorption consists of the cost of the product (manufacture) and the non-product cost (period), differentiation is made over time periods in the financial statements
Direct-Costing	Indirect (fixed) costs are not allocated to products The cost of the products consists of: the cost of manufacturing (direct material costs, direct wage costs) and fixed costs (of the period) Uniform Gross Contribution = Sales Income - Variable Costs (Materials, Wages, Other Indirect Variable Costs) Inventory is considered an asset
TOC/TA	The cost concept of the product is not used. Production capacity = unit price - raw material - other costs that vary for each production unit (e.g. performance-related wages) All costs other than raw material costs and any other costs of production are considered as costs of the period Administrative and sales expenses are considered as expenses of the period Capacities per unit of constraint: the sales price less the cost of the raw material (or other direct costs), divided by the constraint units used to make the product Inventory is considered a money-related debt

Source: Authors processing

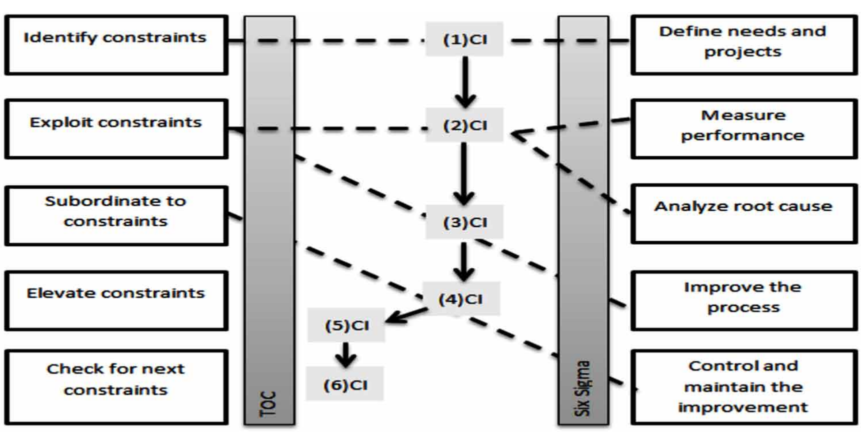
Six Sigma and TA/TOC

Six Sigma is a methodology for improving business processes where sigma is a statistical measure of process variability. In other words, Six Sigma requires the use of statistical tools to acquire the knowledge needed to obtain the best, faster and less expensive products and services than the competition (Breyfogle, 1999). The Six Sigma methodology has the role of changing the culture through innovative improvements, focusing in particular on external thinking in order to aggressively achieve the set goals. Through its deployment, Six Sigma can infuse intellectual capital into a company and produce unprecedented gains of knowledge that would translate into the results obtained at the limit (Kiemele et al., 1997). The implementation of the Six Sigma methodology involves the adoption of a strategy and a series of measures specifically designed to facilitate the process of continuous improvement. The strategy has the main role of scrutinizing the manufacturing, engineering and transactional processes of the entire process carried out through the following steps (Plotkin, 1999): (1) Identifying customer needs and the appropriate project for the

Six Sigma effort; (2) Identification of the performance indicators of the selected process and their measurement; (3) Determination of variables generating quality variations and their analysis; (4) Identification of means to eliminate the causes of defects and process modification; (5) Maintain continuous improvement through control.

An integrated improvement framework that combines Six Sigma and TOC is presented in Figure 1. The first stage of the integrated framework is identical to both strategies and its purpose is to identify the current constraints that impede the achievement of a company's overall performance (examples: meeting customer needs, improving the productive system, etc.). After the first step, a process to be improved is selected. Stage 2 measures the current performance of the selected process and identifies the root of the cause to be corrected for improvement. Stage 2 also integrates the two steps of the Six Sigma methodology for measurement and analysis. After identifying root causes, in Stage 3 of the Integrated Approach the Six Sigma strategy is applied by using key manufacturing, engineering and statistical technology techniques to eliminate the root causes of the improvement of the selected process. The purpose of this step is to use current capacity without incurring additional capital expenditure. In stage 4, check and make sure that the changes made in the previous steps are adequately supported by the rest of the system. In Stage 5, if the selected process becomes insufficient to reach customer goals, managers should consider other variants to increase the capacity of the process (examples: outsourcing, additional investment). In Stage 6, managers must remain vigilant and supervise the dynamic nature of production, monitoring closely the emergence of new constraints.

Figure 1. Integrated framework between TOC and Six Sigma
Source: Processing and adaptation after Ehie and Sheu (2005).



Experts believe that an excellent platform for continuous improvement is offered to managers by Six Sigma and TOC, collaborating and creating synergy for a profitable environment for all parties involved in performance. To develop efforts to integrate the two techniques, we suggest using the Thinking Process, which is the methodology developed on the basis of reason-effect logic, in order to understand the relationship between different parts of a system (McMullen, 1998; Scheinkopf, 1999). This methodology has proven its effectiveness in identifying basic issues, drafting resolutions, phasing-in implementation, resolving potential conflicts of resistance to change, and requesting support from both employees and management. The methodology can also be applied successfully in managing physical constraints, changing company-level policies (Schragenheim, 1998, Pantelescu and Ioncica, 2012).

Lean Accounting and TA/TOC

The main purpose of Lean Accounting is to solve the problems caused by traditional management accounting systems and to support poor transformations and to promote poor strategies (Maskell and Baggaley, 2006). By providing accounting support for lean operations, the lean accounting concept is used to consolidate underlying accounting tools as an innovative accounting approach and a viable alternative to traditional accounting management systems. The reflection of the differences between traditional accounting and lean accounting systems is presented in Table 4.

Table 4. Conceptual comparison between traditional accounting and lean accounting systems

Traditional management accounting systems	Lean accounting
Complex and requires a great deal of work and time	Lean, fast and timely
Financial performance measures: work efficiency Concerned about the absorption of indirect costs	Financial and non-financial performance measures: efficiency, quality, timely service, etc.
Maximize the use of company resources according to standard costs	Maximize value flow, promoting continuous improvement and value for internal/external customers
Centralized on costs and products	Focused on value-flow processes
Responsible: management, management controller	Responsible: personal accountancy department or managerial team of value flow
Reporting is complex, unclear, and uses tricky language	Reporting is clear and uses accessible language and the reporting frequency can be: daily, weekly, monthly

Source: Processing and adaptation after Cesaroni and Sentuti (2014).

Based on table 4, we can see that traditional accounting management systems are inadequate from the point of view of the current trend. Thus, traditional accounting management systems are complex processes that require a large amount of non-value work. They offer possibilities to measure financial performance only from the point of view of human resources, focusing on large outputs and high levels of inventory. Traditional companies use standard costs on products, works, or services that can be misleading when deciding on cost-effectiveness, selling/buying, purchasing, rationalizing the product, etc. Their financial reports are complicated by using various unexplained formulations and producing negative effects when substantiating managerial decisions. Compared with traditional accounting management systems, lean accounting uses clear and comprehensible reporting tools so that all categories of users can easily understand existing information. Also, lean accounting tries to have a clearer understanding of the real costs associated with their processes and their value flows.

Most specialists have studied the possibilities of integration between throughput accounting and methods such as Activity-Based Costing (ABC), Direct- Costing (DC), Six Sigma (SS), etc. but very few have treated integration with the concept of lean accounting (Utiyama and Filho, 2013; Elsukova, 2015).

On a comparative analysis between lean accounting and throughput accounting, the following differences shown in Table 5 resulted.

Table 5. Comparative analysis between lean accounting and throughput accounting

Lean accounting (LA)	Throughput Accounting (TA)
The cost accounting object is a flow-creation value (Value Stream) - a process through which the company delivers value to customers	The object of accounting is the products, the executed works, the services
Cost classification: Flow costs and outflow costs	Cost classification: total variable costs and operational costs
Cost allocation techniques are not used or the cost share outside the allocated flow is insignificant	No allocation techniques are used, or operating costs are allocated according to the ABC method
Do not calculate the production cost of finished products	The sales price of products is estimated based on total variable costs
In the management accounting, they are used as bookkeeping accounts for: total variable costs, operational costs and productivity accounting	In the accounting, they are used as bookkeeping accounts for: costs of increasing the value of the flow, costs outside the flow, etc.
Uses non-financial indicators in reporting information (flow rate, average streaming costs)	Uses financial and non-financial indicators in reporting information (TA, profit, investment in buildings, construction, reserves)
Reporting situations are prepared monthly or quarterly	Reporting situations are drawn up weekly

Source: Authors' processing

Starting from the comparison presented and taking into account the principles of lean accounting, we can say that among the lean accounting objectives at the company level we can list: (1) the simplification of the accounting and controlling processes of the management based on the lean accounting principles; (2) improving decision-making and operational processes by providing relevant, clear, comprehensible and timely company management information; (3) encouraging lean transformation and lean culture at company level by empowering employees; (4) monitoring and measuring performance according to lean accounting principles through tools such as: Value Stream Costing/Value Stream Profit & Loss; Visual Performance Measurement/Box Score.

Value Stream (VS) is the sequence of processes through which a product is transformed and delivered to the customer (IMA, 2006) or that group or family of related products or services using the same stages of the process (Rao and Bargerstock, 2011), and includes all the activities of the customer (delivery, production, sales, marketing, customer care, delivery, maintenance, etc.) and the resources (labor force, materials, machines, equipment, etc.) products and customer services (Maskell et al., 2011; Debusk and Debusk, 2012). For this reason, all costs, income and profit reporting are organized around the value flow concept (Maskell and Kennedy, 2007).

Analysis of Managerial Implications

ABC and TA

A company using the ABC method decides to implement TA/TOC to increase its performance. After the implementation team analyzes the proposed objective, it establishes the implementation plan and the deployment stages. From the entire range of the company, 4 products have been selected to exemplify 4 products that do not register any results. Starting from this situation, it is desirable to investigate the constraints that impede the change of results and the achievement of some performances.

In the year prior to the implementation of the TA/TOC implementation process, the simplified accounting situation was presented in Table 6. The responsible manager took the decision to cease the manufacture of the product 1, which led to the situation presented in Table 7.

As can be seen, the net profit decreased by 61.11%, but the cause or constraint for which the product 1 recorded losses was not known, which affected and the decrease of the profit for the product 2 and the total profit. After looking at the constraints and their analysis, applying the TA/TOC principles, the accounting situation is presented in Table 8.

Table 6. Planning sales of products according to the accounting situation

Explications	Product 1	Product 2	Product 3	Product 4	Total
1. Estimated revenue from sales	12.000	18.000	28.000	32.000	90.000
2. Costs with materials	4.000	4.000	6.000	10.000	24.000
3. Direct labor costs	4.000	5.000	6.000	8.000	23.000
4. Fixed Costs	5.000	5.000	7.000	8.000	25.000
5. Total costs (2 + 3 + 4)	13.000	14.000	19.000	26.000	72.000
6. Net Profit (1-5)	-1.000	4.000	9.000	6.000	18.000

Source: Authors' processing

Table 7. Planning sales of products according to the cessation of the manufacture of the product 1

Explications	Product 1	Product 2	Product 3	Product 4	Total
1. Estimated revenue from sales	0	18.000	28.000	32.000	78.000
2. Costs with materials	0	4.000	6.000	10.000	20.000
3. Direct labor costs	0	7.000	7.000	8.000	22.000
4. Fixed Costs	0	7.000	11.000	11.000	29.000
5. Total costs (2 + 3 + 4)	0	18.000	24.000	29.000	71.000
6. Net Profit (1-5)	0	0	4.000	3.000	7.000

Source: Authors' processing

Table 8. Production capacity accounting based on product sales planning

Explications	Product 1	Product 2	Product 3	Product 4	Total
1. Estimated revenue from sales	12.000	18.000	28.000	32.000	90.000
2. Total variable costs (materials only)	4.000	4.000	6.000	10.000	24.000
3. Production capacity (1-2)	8.000	14.000	22.000	22.000	66.000
4. Operating Expenses	-	-	-	-	48.000
6. Net profit (3-4)	-	-	-	-	18.000

Source: Authors' processing

Analyzing Table 8, an increase in profit for all four products can be observed and their manufacturing process should be continued. It also highlights the fact that the profit of product 1 is lower and the decision to stimulate the sale of products 3 and 4 to maximum production is taken, which in turn brings maximum profitability. Sensitive change of results through the application of TOC principles and their continuous improvement is affected by the deficiency of information processes and the difficult identification of constraining processes and resource-intensive activities, which causes TOC to ask for more from the company structure.

To conclude, adapting TOC to the ABC specification or adapting throughput accounting to cost accounting has helped to correct managers' decisions and identify the constraints of the system used to consolidate company-level results.

Based on the findings of our specialists, we believe that by using a fair design (Căpușneanu et al., 2011), the synergistic integration of the two approaches, ABC and TA/TOC, could remove implementation difficulties and ensure the performance of companies.

Absorption Costing/Direct-Costing and TA

In order to demonstrate the impact of management decisions, we draw attention to Table 9.

As can be seen in Table 9, the most profitable products are 3 and 1, irrespective of the method of determination according to the variable costing method or the throughput accounting. The problem lies with products 2 and 4 that are less profitable. Table 9 also shows the very large percentage of other variable costs (66.67%) held by product 4 compared to product 2 (10%). In this situation, the manager will have to decide what decision he/she will take regarding the manufacture of the two products (2 and 4), taking into account either the variable costing method or the throughput accounting.

If we take into account the gross contribution related to the processing time (Pt1 and Pt2), we find that the most profitable products are 1 and 3 and the most unprofitable are 2 and 4. Taking into account the production capacity related to the processing time (Pt1 and Pt2), we notice that the most profitable products are 4 and 1, and the most unprofitable are 2 and 3.

In most cases, companies only allocate a small percentage of variable costs, especially those with direct materials such as the standard variable costing method, avoiding the misallocation of other costs, such as those with direct pay. The only benefit in allocating direct variable costs is the simplicity of accurately recording the link between direct costs and finished products. For this reason, Throughput Accounting uses *TA = Sales Income - Total Variable Costs*, determining the relative marginal value to cover other variable or general costs. Decisions made on the basis of Throughput Accounting lead to an incorrect product mix, which may translate into a fall in profits. In conclusion, a correct analysis consisting of accurate identification and the correct allocation of other variable costs can lead to effective decision making in the case of the product mix of the throughput accounting.

Table 9. The situation of indicators calculated using the Direct-Costing and Throughput Accounting

Indicator	Computing relation	Product 1	Product 2	Product 3	Product 4
1. Selling price	PV	437,5	700	2100	262,5
2. Total variable costs	CVT	192,5	525	1050	52,5
3. Other variable costs	ACV	87,5	70	350	175
4. Gross contribution	CB = (1)-(2+3)	157,5	105	700	35
5. Production capacity	CP = (1)-(2)	245	175	1050	210
Position occupied by product after CB		**2**	*3*	**1**	*4*
Position occupied by product after TA		**2**	*4*	**1**	*3*
Weight of CVT in PV	% CVT/PV	44	75	50	20
Share ACV in PV	% ACV/PV	20	10	16,67	66,67
6. Processing time 1	Pt1 (min/ product)	12	20	80	10
7. Processing time 2	Pt2 (min/ product)	15	15	90	8
CB/Tp1	(4)/(6)	13,125	5,25	8,75	3,5
CB/Tp2	(4)/(7)	10,5	7,00	7,78	4,375
TA/Tp1	(5)/(6)	20,416	8,75	13,125	21,00
TA/Tp2	(5)/(7)	16,34	11,67	11,67	26,25
The position occupied by the product after CB/Pt1		**1**	3	**2**	4
The position occupied by the product after CB/Pt2		**1**	3	**2**	4
The position occupied by the product after TA/Pt1		**2**	4	3	**1**
The position occupied by the product after TA/Pt2		**2**	3/4	3/4	**1**

Source: Authors' processing

Lean Accounting and TA/TOC

Value Stream Costing (VSC) provides objective and easy-to-calculate information (by reducing cost allocation), easy to understand both employee and management staff, and encourages value-added flow optimization throughout the company. The possibilities of monitoring and measuring performance according to the lean accounting principles can be achieved through tools such as: Value Stream Costing / Value Stream Profit & Loss (Table 10); Visual Performance Measurement/Box Score (Table 11).

Table 10. Value Stream Profit & Loss

Article	Computing relation	Week 1	Week 2	Goal
1. Sales		3.500.000	3.700.000	4.000.000
2. Material costs		1.250.000	1.350.000	1.560.000
3. Wage costs		480.500	220.000	250.000
4. Equipment costs		240.000	123.000	135.000
5. Employment costs		170.000	100.000	120.000
6. Other cost flow value		120.000	340.000	320.000
7. Total cost flow value	(7)=(2+3+4+5+6)	2.260.500	2.133.000	2.385.000
8. Value flow profit	(8)=(1-7)	1.239.500	1.567.000	1.615.000
% of sales	(8/1)*100	35,41%	42,35%	40,38%

Source: Processing and Adaptation after IMA (2006)

Table 11. Box Score

Article	Computing relation	Last week	The recent week	Future status
Operational				
1. Units per person		582,5	645	687,5
2. Single delivery		90%	92%	96%
3. Day dock-to-dock		20	20	15
4. First time		82%	85%	92%
5. Average production cost		140,93	139,75	137,5
6. Accounts receivable in days		45	45	48
Capacity				
7. Productive		45	45	48
8. Non-productive		40	40	50
9. Available		23	23	28
Financial				
10. Sales		3.500.000	3.700.000	4.000.000
11. Material costs		1.250.000	1.350.000	1.560.000
12. Value Flow Profit	(12)=(10-11)	2.250.000	2.350.000	2.440.000
13. Profitability of sales	(13)=(12/10)*100	64%	63,51%	61%

Source: Processing and Adaptation after IMA (2006)

The way in which information is presented is a simplistic and effective one. The information is provided through the accounting department, more precisely by the chief accountant, whose role can be transformed into a management controller. In this situation, management control is no longer just a controller but a manager, whose role is particularly important in the implementation of lean accounting. It provides management with information on how to build the tools to monitor and measure company performance. Decisions based on lean accounting lead to a correct determination of the value-for-profit and return on sales.

Comparative Analysis of Reporting Situations

The most important aspect in correctly reflecting information obtained from managerial accounting is reporting situations.

From the point of view of external reporting, absorption costs are used to prepare financial statements. According to US GAAP, all product costs should be recorded as cost of goods sold and should therefore be offset against revenue when the products are sold. Thus, product costs can be incurred at the time of manufacture and recognized at the time of sale. On the other hand, the costs of the period (administrative and sales expenses) are recognized when they are incurred, as these costs do not bring any future benefits.

From the point of view of internal reporting, absorption costs, variable costs or transfer costs may be used. Absorption costs are used to save additional reporting costs (external). As fixed costs do not change significantly over a certain period of time, it is advisable to use variable costs or transfer costs. Because in the TA approach, direct costs of wages and factory costs are treated as costs of the period, managers tend to control these costs more closely.

In order to capture the above-mentioned aspects, the reporting situations were prepared from the perspective of the principles of the three techniques (absorbent costs, variable costs and TA) (Table 12).

SOLUTIONS AND RECOMMENDATIONS

Considering the constructive and analytical evaluation on the basis of this chapter, we propose to the specialists and to all those interested, the following solutions for the improving of the addressed topic:

Table 12. Comparative reporting situation

Explications	Absorbing cost	Variable cost	Throughput Accounting
Cost of goods sold	1. Stocks (initial) 2. Direct materials 3. Direct pay 4. Indirect (variable) 5. Indirect (fixed) 6. Goods available for sale (1 + 2 + 3 + 4 + 5) 7. Stocks (final) 8. Cost of goods sold (6-7)	1. Stocks (initial) 2. Direct materials 3. Direct pay 4. Indirect (variable) 5. Goods available for sale (1 + 2 + 3 + 4) 6. Final stocks 7. Cost of goods sold (5-6)	1. Stocks (initial) 2. Direct materials 3. Goods available for sale (1 + 2) 4. Stocks (final) 5. Cost of goods sold (3-4)
Statement of Income	1. Income 2. Cost of goods sold 3. Gross contribution (1-2) 4. Sales and general administration costs 5. Operating result (3-4)	1. Income 2. Cost of goods sold (variables) 3. Sales and general administration costs 4. Gross contribution (1-2-3) 5. Indirect (fixed) 6. General and Fixed Sales and Administration Costs 7. Operating result (4-5-6)	1. Income 2. Cost of goods sold 3. Contribution productivity (1-2) 4. Direct pay 5. Indirect Manufacturing 6. Sales and general administration costs 7. Operating result (3-4-5-6)

Source: Authors' processing

- Adoption and implementation of Throughput Accounting (TA) alongside other managerial accounting methods. The results of specialist studies have shown that there are real hybridization possibilities between Throughput Accounting (TA) and Activity-Based Costing (ABC), Direct-Costing (DC), Six Sigma (SS), Lean Accounting (LA).
- The management of manufacturing companies should take into account for the decision-making process those information that is scientifically substantiated and best reflects their information and decision-making needs (Topor et al., 2011, 2017). From this point of view, Throughput Accounting eliminates dependence on cost accounting standards and Theory of Constraints (TOC) as a component of the development of production capacity accounting enhances the role of constraint in managerial decision making.
- TOC offers the exact alternative to conventional management approaches with much more convincing arguments especially for those companies in the manufacturing industry who need a fundamental transformation. Abandoning old practices and replacing them with new ones, changing the perceptions of

managers and staff involved in TA/TOC, values in relation to production is just the result of paradigm shift.

- TA/TOC offers the possibility to create new sets of managerial accounting synthesis documents, starting from the successful integrated use from several of its methods (Briciu et al., 2013; Cokins et al., 2011; Căpușneanu et al., 2011).

Considering the presented concepts and case studies based on literature, we would like to recommend to the specialists and those interested in deepening and implementing the TA/TOC, the following aspects or points of view:

- Carefully analyzing TA/TOC principles and factors and influencing company cost management. It is necessary to set up an analysis and implementation team that will study all aspects necessary for the adoption and implementation of TA/TOC.
- Researching the literature on the chances of successfully adopting and implementing TA/TOC along with other consecrated management accounting methods. Calling on specialized institutions or research institutes can be viable solutions to ensure the successful adoption or implementation of TA/TOC at company level.
- Expanding the TA/TOC culture within companies that have adopted or wish to adopt these systems along with dedicated accounting management systems. This can be done by organizing training and information courses organized by specialists in the field.

FUTURE RESEARCH DIRECTIONS

Through the goals set, we believe that the target of this chapter has been reached, addressing both business and academia. The presented and analyzed issues from the literature are the synthesis of a large amount of information processed by authors covering the chosen topic, but there are other opportunities to quantify future researches. To complete the research framework opened by us, the specialists and those interested can amplify future new research directions focused on:

- Analyzing the possibility of adapting the TA/TOC principles to other management accounting methods;
- Analyzing the impact of managerial decisions resulting from the adaptation of the TA/TOC principles to other management accounting methods;

- Analyzing the possibility of creating new performance monitoring and measurement tools based on the TA/TOC principles and the arrangements for adjusting or completing the decision-making process.

CONCLUSION

This chapter covers a wide range of themes, starting with conceptual approaches to the concepts of Throughput Accounting (TA), Theory of Constraints (TOC), and interconnections between the two notions. As a strong point of this chapter we can mention:

- Completing some existing gaps in managerial accounting and the application of TA/TOC principles within companies precisely by interpreting conceptual approaches and theories under discussion;
- Presenting the impact of managerial decisions resulting from the adoption of the TA/TOC principles in relation to other Activity-Based Costing, Direct-Costing, Six Sigma, Lean Accounting, and comparative analysis of their reporting situations contributes to the expansion their visibility among specialists.

By our contribution, we believe we have increased our knowledge of the field, provoking new attempts to adopt or implement TA/TOC and thus open up new perspectives for future research. This chapter will remain open as long as the specialists and the interested public find the information needed to complete and expand their knowledge. This chapter remains open to future theoretical and empirical research and additions made by TA/TOC principles and their hybridization methods to other management accounting methods. The identification of viable and sustainable solutions depends only on the degree of involvement of specialists and managers in identifying empirical practices at institutional level, thus guaranteeing the efficiency of TA/TOC implementation. Developing partnerships between academia and interested business organizations and collecting necessary information can help expand the theoretical-empirical framework of TA/TOC and identify robust solutions for implementing and guaranteeing success in the business environment.

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KEY TERMS AND DEFINITIONS

Activity-Based Costing (ABC): An accounting method that identifies the costs of (indirect) activities and then allocates these costs to the products. Allocation of product costs to products is done through cost drivers.

Direct-Costing (DC): A specialized form of cost analysis that takes into account when determining the result only the variable costs and not the fixed costs that are considered as costs of the period.

Lean Accounting (LA): Advantage of poor production that attempts to eliminate waste from a company's capital resources by applying principles of manufacturing the company's weak financial function.

Lean Manufacturing (LM): Business management tool that focuses on reducing waste from production processes.

Mix Integer Linear Programming (MILP): Linear program where some variables are required to take whole values and occur naturally in many applications.

Return on Investment (ROI): Indicator that measures the gain or loss generated by an investment relative to the amount of money invested.

Six Sigma (SS): Managerial approach focused on a team that aims to improve performance by eliminating waste and defects. Improving performance and reducing process variation leads to the reduction of defects and improved profit, employee morale and product/service quality.

Theory of Constraints (TOC): Organizational change method centered on improving profit. Philosophy is that each organization must have at least one constraint. A constraint is any factor that limits the organization from making more efforts, usually profit.

Throughput Accounting (TA): Integrated system based on principles used in consolation theory (TOC) accounting for performance measurement.

Value Stream (VS): A sequence of processes through which a product follows all the steps necessary for transformation and delivery to the customer.

Value Stream Costing (VSC): Process of identifying and setting costs for all stages of the process needed to deliver value to the customer. It is a function that helps determine the value created by each stage of the process.

Value Stream Profit and Loss (VSP&L): Lean reporting specific situation in which the return on the flow of value is provided by the flow of value less the indirect costs.

Chapter 3
The Usefulness of Accounting Models in Providing Accounting Information in Romania

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ABSTRACT

The evolution of the business environment under the impact of globalization highlights the increase of social expectations through which it considers the success of the economic entity, measured and recognized in various forms of expression, based on the indicators of performance in terms of accounting information. The purpose of this chapter is to present the models of "cash accounting" and "accrual accounting" in terms of conceptual and empirical, comparative, right next to the main similarities and differences between them, and the usefulness of accounting information produced by them in the decision-making process by users of accounting information. The use of one or the other accounting model makes the accounting information different, respectively creating a different picture of financial performance, the parties concerned, in many cases, to request additional information. It is therefore of interest to be known options regarding the production of accounting information, indicators for measuring the financial performance of the entity.

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INTRODUCTION

Identification and comparison of the economic entity's success leads to the recognition of the ability to have resources which cover liabilities and expenses. Accounting recognition involves an accounting framework through which events and transactions are measured, the operations that take place within an economic entity, to be given appropriate information necessary for management, monitoring and controlling of the economic entity, as well as comparisons and analysis of the interested parties.

The success of an economic entity recognized on the basis of various indicators that measure the performance of the accounting model used depending on what is found, is recognized and the added value of economic entities is published. Furthermore, on the basis of alternative accounting treatments and options laid down in a framework of financial reporting standards applicable to the economic entities, it is notable a process of reconstruction. In this context, it is necessary to accommodate the needs of interested parties regarding the recognition of the added value, an essential aspect for achieving a proper benchmark, both nationally and internationally.

The added value - the purpose of an economic activity - is called in some situations profit, in others a win, depending on the context of the establishment and recognition of revenue in accounting. Accounting recognition of expenses incurred in the process of obtaining income varies according to the type of economic entity, but also to the accounting model used.

In Romania, the use of the model of cash accounting is allowed for individuals, for businesses that obtain income from rentals, from activities specific to the agricultural entities, associations and religious establishments. Other economic entities use the accrual accounting model.

The main objective of this chapter is to highlight the differences between the two accounting models and their impact with respect to the accounting information produced, its role in justification and presentation of indicators for measuring the economic performance in terms of financial result from the Profit and Loss Statement and in the light of Cash flow Statement. Subsequently, it can be concluded the aspects of the accounting information produced by the two accounting models in decision-making process for economic entity.

BACKGROUND

A big part of the decisions regarding the economic entity are grounded on the basis of the accounting information regarding the added value, the performance. The added value of an economic entity will always be studied globally, both financial as well as non-financial. In the context of sustainable development, the added value should be recognized not only in a static but also a dynamic vision, at least in three dimensions: economic, social and environmental.

Traditional indicators by which the added value is measured are of a financial nature, which have as their source the profit and the cash. The importance of profits and cash is recognized in ensuring the survival of an economic entity, the sustainable development at a global and organizational level. Therefore, profit and cash represent the two dimensions for defining the financial performance. Around them, have drawn the architecture of the two accounting models: model of accrual accounting and cash accounting.

The two accounting models have been the subject of debates in the literature, where it presents conceptual elements and thereof, it can be identified and highlighted features similarities, and differences (Englund, Gerdin & Abrahamsson, 2013).

Some have presented the concepts and methods used by financial accounting which included deepening the introduction or theoretical knowledge of the two accounting models. Others have studied the advantages and disadvantages of the two accounting models used in accounting information relating to the economic entity's activity, as well as its result. The work of synthesis based on the models of accounting has been the subject of study for some scholars or professionals, accountants that led to the presentation of the result in the form of cash flow or profit/loss. In this respect, it should be mentioned the authors of Weil, Schipper, and Francis (Weil et. all, 2014; Ristea et all, 2010; Tickell, 2010; Cantu, 2012; Zarandi et all, 2013; Mulford & Comiskey, 2005) as well as legislation that represents the current state of knowledge concerning the two models.

The knowledge of information that define the added value created by an economic entity, its financial performance, regardless of the model of accounting used, requires the evaluation of performance. As was noted by Beird and Su (2018), the assessment of performance is necessary for the establishment and implementation of the new management strategies (Beird et all, 2018). It recognizes the role of feedback of the performance indicators which are established on the basis of profit and of the cash, but this role must be assessed from the prospect of the future, such as the measures in the control of feedback should be supplemented by measures in the feed-forward control. Therefore, we recognize the importance of providing performance information for both economic entity, and for influencing perception regarding the place of an economic entity in a competitive market. Research from this point of view were performed by Grafton (2010).

Concepts Regarding the Accrual Accounting and Cash Accounting Methods

Accounting, through the information provided, contribute to the development of an economic entity, not only as a processor of information, but also as a support in decision-making process (Englund & Gerdin, 2018).). But because of the way that accounting entity depends on the accounting model used, the characteristics must be mentioned, advantages and disadvantages of accrual accounting method and cash accounting method, as well as their mandatory or optional use by the economic entities.

The simple-entry bookkeeping, from long ago, shows receipts and payments made by the economic entity, but the unearned sales or purchases not paid are not being recognized. Hence, the designation of accounting ("Cash Basis Accounting)- shows only the cash flow.

In the meantime, the development of business and the need to control their assets, has determined, in medieval times, the appearance of double-entry accounting, which recognizes sales and purchases at full value. Through the operations of receipts and payments there are indicated information regarding the cash at the present time, future flows that can be expected through the information provided by the liabilities and debts in the accounts of the economic entity? From here comes the name "Accrual Accounting" - showing the liabilities or receivables of economic entity.

Simple accounting entry is associated to the accounting containing only information regarding receipts and payments, whether in cash or bank account, recorded chronologically and systematically. Vangermeersch (1996) defines a simple bookkeeping entry as one double entry always incomplete.

Although through the information it provides, "cash" accounting is limited to receipts and payments-monetary items of cash flow-it is recommended by Mersevey in the year 1882 to be learned before the double entry method. The simplicity, the general and practice usage for small businesses is what makes the information provided to be more easily understood. However, he admits that all business people should record a statement of liabilities and receivables (Vangermeersch, 1996).

It is known that the result of the activity of an economic entity is determined as the difference between revenues and expenditures, defined as the profit - in case of revenue higher than expenditure - and loss if revenue are smaller than expenses. But the timing of recognition of revenue is precisely what makes the difference between the two models. In the case of cash accounting model the revenue of economic entity is represented only by the money received, and expenses are represented only by the payments made.

It is noted that the information taken from the accounting regarding the revenue and payments made by the economic entity leads to determine the outcome in the form of cash flow - as the difference between revenues and expenses. Cash flow thus determined may have positive values - if revenue is higher than payments, and negative values - if revenues are smaller than payments.

In the case of “accrual” accounting model, the revenues are recognized in the period in which they occur, being associated with the economic costs incurred for the purposes of revenue, without being influenced by financial settlement operations. Accrual accounting method determines the presentation of the accounting information based on the rules of recording income and expenses when they incurred, and not when they are received or paid.

It is noticeable in the case of the accrual accounting, the fact that the revenue recognized in the accounts shall take the form of the amounts received - in cash or via bank accounts and notes receivables, and the expenses take the form of payments and notes payable, and the result of the economic activity is retrieved in the form of net availability and monetary commitments.

Thus, in the case of accrual accounting, it is found that the accounting information provided by “cash” accounting is supplemented with aspects of the future commitments of economic entity.

Therefore, the accrual accounting method provides a comprehensive overview of the transactions, but the application of the “cash accounting” method is necessary for the determination of cash flows.

It should be noted that through the model of accrual accounting the amounts received were recognized as income and the amounts paid were recognized as expenses of the period, similar with the moments recognized by cash accounting model (Guthrie & Parker, 2016).

In conclusion, as Finney and Miller sustain, that the fundamental difference between the two modes of accounting regarding revenue and expenditure, it is a matter of time. The result is the same only if during the same period of time the revenue that was obtained was collected and the payment of expenses incurred regarding that revenue (Finney & Miller, 1963).

The Need for Accounting Information in Decision-Making

The use of accounting models is governed by specific laws, the ”cash” accounting model being permitted for liberal professions, the authorized individuals, associations of owners and religious units, the latter two categories being given the possibility of opting for the accrual accounting model.

Regardless of the form of organization of economic activity – as a legal entity or authorized individuals – and the model of accounting used, the accounting of the economic entity provides information to its users, internal or external. Because the information, as the main force of development in social, political or economic plan is the one to influence the decisions, its filtering may give direction for action.

The accounting information is provided by professional accountants through the annual reporting of information contained in the financial statements and their annexes. The information provided by the accounting is processed by the professional accountant to give an adequate image of the economic entity, useful to those interested in the economic entity.

The image of economic entity, faithful to the image of reality, it is given by a useful information, relevant to the consumer and representing the exact reality. In this regard, because the decisions must be fair and to bring economic growth to the entity, accounting information must be comparable, verifiable, timely and comprehensible.

The way in which all these characteristics of accounting information are observed influences the decision making process by all those interested in the economic entity. The direct or indirect interest in the economic entity is manifested by external and internal users of the economic entity.

Mateș (2005) consider the management as an internal user concerned directly to obtain information on accounting, although investors have direct interest in learning bookkeeping information of the economic entity, they represent external users of the accounting information. The government, being an external consumer of the accounting information, has an indirect financial interest in the economic entity.

The accounting information, determined by the accounting model used, will influence the decisions of the economic entity and the people interested in it have to be taken into consideration. But only part of the decisions are influenced by the model of accounting used.

Not just the result – widely regarded as the difference between income and expenditure or as a difference between receipts and payments – is the only interest of the users of accounting information in decision making. Also, the property, assets and liabilities of the economic entity may be of interest in decision making process. In their case, the accounting model does not imply differences in accounting recognition but recognizes – or not – these elements.

The decisions taken on the basis of accrual accounting will take into account information on the revenues, expenses and profit or loss of the business, and those relating to fixed and circulating assets -debts and the company's capital.

Decisions taken based of the cash flow, in the case of the cash accounting, will not be the optimal decisions because they do not take account of unpaid debts or receivables not received.

It is noted the possibility of inappropriate decisions. Thus, in the event of a positive cash flow, economic entity makes decisions to use the availability of money without having to take account of the debts which it has paid, thus becoming a "bad-paying", not necessarily intentionally, but due to some partial information received from accounting.

Also the financial situation with a negative cash flow can determine decisions that may employ economic entity in debt why not needed. A financial period which ended with a negative cash flow may be following a financial period with positive cash flow. In this case, the negative cash flow is actually using the one positive from the preceding period.

Decisions relating to the present and future economic activity of entity shall not be taken only by those at the management of economic entity whose job it is to lead the economic entity towards additional revenue which constitute different interests for different users.

Regarding the decision making process by other users, in Table 1 it is shown a summary of their interests and decisions that can be influenced by accounting model.

It is noted the influence of accounting models in the decisions of users in the context in which the economic interests of the entity are different.

Table 1. Users of accounting information and decision making

<table>
<tr><th>Users</th><th>Interest</th><th>Influenced by accounting model</th><th>Examples of decisions</th></tr>
<tr><td>Investors</td><td>Profit</td><td rowspan="6">Yes

● Different mode of calculation
● Cash accounting model does not provide information about receivables and payables</td><td>● Dividend distribution
● Trading shares</td></tr>
<tr><td>Donors</td><td>The cash availability of economic entity and the ability to generate profit for the collection of interest</td><td>● Loan
● Interest rate
● Perceived guarantees</td></tr>
<tr><td>Employees</td><td>Entity's economic stability and profitability</td><td>● Salary Increase
● Bonuses taken from profit of the economic entity</td></tr>
<tr><td>Business partners</td><td>Payables and receivables of economic entity</td><td>● Continuing of the business relations</td></tr>
<tr><td>State</td><td>Revenue, the result or the properties of economic entity</td><td>● Establishment of the receivables of the economic entity</td></tr>
<tr><td>Court</td><td>The outcome and commitments the entity</td><td>● Ways of reconciliation</td></tr>
</table>

Source: authors' processed

Outcome of the Economic Activity in the Dimension of the Accounting Models

As it was mentioned, the result, as primary interest in the economic activity of an economic entity, differs depending on the model of accounting used. Also, its presentation by those concerned is different depending on the accounting model used.

"Accrual" accounting model presents information concerning the result through the preparation of the profit and loss statement, which provides information on the income and expenses recorded by the economic entity and determines the outcome on the two activities: operational and financial. This component of the financial statements shall be mandatory for all economic entities that use the accrual model.

Determining the result as difference between revenues and payments is presented in the statement of cash flows, a component of the financial statements mandatory only for medium and large economic entities. For small economic entities this statement is optional, not mandatory for economic micro-entities. The classification among those categories is based on the revenue, total assets and number of employees.

For economic entities that use the cash accounting method and determines the outcome as the difference between income and expenditure the cash flow statement have been drawn up in the known format, organizing its records and calculations based on the Cash Registry.

The profit and loss account, in addition to the presentation of the amount of income and expense of which the result was determined, combines the income with the expenses incurred for the purpose of realizing the income. The information is tangible about the realization of the profit and the precise determination of the expenditures on which the revenues were based.

A profit and loss account drawn up on the basis of accrual accounting could generate an unreal image, distorted over the economic entity. Accelerated payment of some debt could cause a recognition of a loss, such as non-payment of debts, could determine the recognition of a profit.

Information from the profit and loss account are sitting at the base of the calculation of the indicators of economic and financial analysis, as well as rates of economic and financial profitability.

Information provided by cash flow statement refers to the image of generation of cash availability from the economic activity and identifies the sources of investment or financing needed.

As it was mentioned, the purpose of the economic entity is to generate profit in the long run, without financial difficulties. Thus, regardless of the accounting model used, the information that accounting provides must support the economic entity in the course of its analysis and solutions for the future.

In this context, over the ages, economic entities have used a range of indicators meant to support the activity of analysis and forecasting. Because the "time factor" is the one who makes the difference between the result set based on accrual accounting and cash accounting, a primary role of the management team is one of the settlement of the terms for claims and debts. The longer deadlines for collection will be shorter than those for payment, the use of the monetary availability will be more effective.

From the indicators of analysis that takes the values of the elements presented in the profit and loss account, one can mention:

- Rate of financial return – calculated by reporting net profit by equity (Burja, 2009, p. 319);
- Rate of economic return – calculated by reporting the profit or loss to the current assets (Robu et all, 2014, p. 358);
- The rate of return from operating income – calculated by reporting the profit or loss to the income from operating activity (Robu et all, 2014, p. 324);

From the analysis of the indicators of cash, it may be mentioned:

- The rate of cash flow from operations – calculated by reporting of operating cash flow to net turnover (Robu et all, 2014, p. 479);
- General liquidity rate – calculated by reporting current assets by current debt (Bâtcă - Dumitru et all, 2018, p. 344);
- Immediate liquidity rate – calculated by reporting the cash availability to current liabilities (Bâtcă - Dumitru et all, 2018, p. 344).

It is noted that only the indicators calculated based on the information provided by the profit and loss account cannot ensure complete decisions. That is why it is necessary to take into account the results of the economic indicators relating to the entity's ability to generate and use the availability of money.

In accordance with the accounting regulations applicable in Romania (Order of the Minister of Public Finance 1802 regarding the approval of the accounting regulations concerning annual financial statements and consolidated annual financial statements, 2014) harmonized with the accounting European regulations (Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 regarding the annual financial statements, consolidated financial statements and related reports of certain types of companies, 2013) only medium and large economic entities have the obligation to draw up the Cash Flow Statement by grouping the receipts, payments and cash flows on three activities: operations, finances and investments.

In the case of companies whose shares are traded on a regulated market or economic entities which applies accounting regulations in accordance with international accounting standards, the Romanian regulation applicable is the Romanian Order of the Minister of public finance no. 2844 from 2016 to approve Regulations of accounting in accordance with international financial reporting standards. For these economic entities the preparation of cash flow statement is mandatory.

In the context of these regulations, of the requirements they expressed, of the type of accounting information produced on the basis of the requirements of the accounting regulations applicable in Romania, the following two questions show the usefulness of profit and cash in the appreciation of the financial performance: cash flow statement constitutes a binding document drawn up, by operation of law, or constitutes a necessity in its role as provider of accounting information complete in measuring the financial performance of the economic entity? Does it represent a measurement of the performance a financial analysis theorem?

To identify the answers and to support the need for the financial performance obtained on the basis of financial analysis in the light of the simultaneous outcome with that of the cash flow it can be invoked the following hypothesis: if the image of the financial performance of an economic entity is illustrated by indicators based on the data representing the result of economic activity linked to the result of the use of the treasury, then this is appropriate and fully represented. To demonstrate this hypothesis there are needed comparative demonstrations based on the variables taken from the practice, according to the next subchapter.

Demonstrations on the Usefulness of Profit and Cash in Estimating Financial Performance

To highlight the issues mentioned above, and to compare and to demonstrate quantitative with regard to the usefulness of the information supplied by the two accounting models - information which are the base of financial performance of the decisions of the parties concerned - it is useful to continue to take exploratory steps through an empirical study. Its results constitute the response to the questions: How do we correctly estimate the financial performance? Only on the basis of indicators from the profit and loss account? Or on the basis of indicators from the cash flow statement? Are both the drawing of documents and the economic-financial analysis based on them important?

Given the confidentiality of the data, the name of the economic entity over which steps have been carried out is not given, only an indication that the data are real and have been taken from site on Bucharest Stock Market Values (www.bvb.ro) of the financial statements for the period 2012 – 2017 shall be provided. Variables taken from the balance sheets of the centralized economic entity are analyzed in Table 2,

Table 2. Variables taken from the balance sheets of the economic entity for the period 2012 - 2017

Variable name	2012	2013	2014	2015	2016	2017
Current assets (in thousand RON) - total, of which:	251,964	305,777	385,588	433,694	458,556	337,218
Cash and bank accounts (in thousand RON)	198,767	249,495	335,368	124,121	244,598	209,847
The Treasury's ratio in total assets (in %)	**78.89**	**81.59**	**86.98**	**28.62**	**53.34**	**62.23**
Short-term investments (in thousand RON)	6,762	7,081	7,669	256,149	163,054	70,624
Ratio in total assets (in %)	2.68	2.32	1.99	59.06	35.56	20.94

Source: author's processed data taken from www.bvb.ro

those taken from the profit and loss Account in Table 3 and the Situation of cash flows are presented in Table 4.

It is observed that during the period under review, the two variables record opposing trends. Thus, during the first three years of the analysis period, monetary availabilities recorded an increasing trend with a significant decrease in the year 2015, followed again by an upward trend. In contrast, short-term investments show a decreasing trend of the ratio in total current assets during the period 2012 - 2014, followed by a significant increase in the year 2015, and then in the period 2015 - 2017, to record a descendant development of the ratio in total assets.

The upward trend continues of the gross economic entity under review throughout the years 2012-2017, from 40,765 thousand lei in the year 2012 to 86,623 thousand RON in the year 2017. Viewed through the prism of generating activities, it is observed the upward trend is observed of the operating profit or loss, with a sharp increase in the year 2014, in contrast with the financial profit or loss recorded in opposing developments.

It appears that the evolution of the net cash flow is determined in the first five years of the progress of the cash investment in the year 2017 being determined by the net cash from financing. Which means that during the first five-year the economic entity was focused on investments, and regarding the financing of economic entity, with a negative flow continuously throughout the period under review, in the year 2017 has been concentrated on liquidation of the financial debts.

It is also noted that cash flow from operating activity was positive throughout the period under review, the cash flow from investment has been sustained in the year of 2012 from the operating activity, and starting with 2013, cash from investments by participating actively in the liquidation of debts by covering part of the amount needed for funding.

Table 3. Variables taken from the profit and loss Accounts of the period 2012 - 2017

Name of indicators	2012	2013	2014	2015	2016	2017
Operating income (in thousand RON)	379,139	405,761	403,079	413,775	412,459	**414,622**
Operating expenses (in thousand RON)	349,216	375,812	348,246	344,247	332,153	**331,568**
Operating result (in thousand RON)	**29,923**	**29,949**	**54,833**	**69,528**	**80,306**	**83,054**
Financial income (in thousand RON)	18,123	11,821	9,947	5,793	3,837	**3,614**
Financial expenses (in thousand RON)	7,281	471	314	36	109	**45**
Financial result (in thousand RON)	10,842	11,350	9,633	5,757	3,728	**3,569**
Gross result (in thousand RON)	40,765	41,299	64,466	75,285	84,034	**86,623**

Source: authors' processed data taken from www.bvb.ro

But because the goal of this case study is to assess the financial performance, a comparative analysis of the indicators relating to the collection of revenue and recognizing the result from net operating in the cash flow from operating activities. Variables that underlie this analysis are concentrated in Table 5.

It is noticeable the proper management of receivables in relation to clients in that that the revenues are collected at the rate of over 92% for the period under review. Also, it is observed that the outcome of the operation lies in cash net of over 83% throughout the period under review.

An upward trend of the development of collected revenue in the first three years followed by a decreasing trend of the data analyzed for the past three years, in the year 2017, however, being superior to that in the year 2012. However in the conditions of an oscillating evolution of incomes, alternating their increases and decreases, at the end of the period analyzed, although revenue in the year 2017 are

Table 4. Variables taken from the situation of cash flows during the period 2012 -2017

Name of indicators	2012	2013	2014	2015	2016	2017
Total revenues (in thousand RON), of which:	372.734	388.591	432.904	419.060	415.233	407.572
Income from the activity (in thousand RON)	358.444	377.158	415.918	408.062	402.605	397.530
Payments (in thousand RON)	347.708	343.976	345.059	360.261	331.437	328.812
Net cash (in thousand RON)	*25.026*	*44.615*	*87.845*	*58.799*	*83.796*	*78.760*
Income from investments (in thousand RON)	52.344	54.377	58.098	74.789	321.948	223.655
Payments from investments (in thousand RON)	61.799	32.056	30.873	295.397	226.671	119.078
Net cash from investments (in thousand RON)	*-9,455*	*22.321*	*27.225*	*-220,608*	*95.277*	*104.577*
Proceeds from the financing (in thousand RON)	29.200	12.467	0	0	2.044	2.710
Payments from financing (in thousand RON)	22.301	28.676	29.197	49.438	60.639	220.798
Net cash from financing (in thousand RON)	*6.899*	*-16,209*	*-29,197*	*-49,438*	*-58,595*	*-218,088*
Net cash flow (in thousand RON)	**22.470**	**50.727**	**85.873**	**-211,247**	**120.478**	**-34,751**

Source: authors' processed data taken from www.bvb.ro

Table 5. Variables compared to the period 2012 - 2017

Name of indicators	2012	2013	2014	2015	2016	2017
Operating income (thousand RON)	379139	405761	403079	413775	412459	414622
Proceeds from the activity (in thousand RON)	358445	377158	415918	408062	402605	397530
Revenue ratio (in %)	*94,54*	*92,95*	*103,19*	*98,62*	*97,61*	*95,88*
Operating profit or loss (in thousand RON)	29923	29950	54834	69528	80306	83055
Net cash from operations (in thousand RON)	25025	44615	87846	58799	83796	78760
Ratio of Cash/ profit or loss from operations (in %)	***83,63***	***148,96***	***160,20***	***84,57***	***104,35***	***94,83***

Source: authors' processed data taken from www.bvb.ro

higher with 9.35% of those achieved in the year 2012, revenue grew, that achieved in 2017 with 10.90% higher than in 2012.

In Table 5 it is noted, mainly positive developments for both variables analyzed, the result of the upward trend continuing from the year 2013, as opposed to the evolution of the cash that has been achieved an ascending evolution during the first three years and in recent years, the trend is one of alternative growth and downwards.

If the analysis on variables is one favorable for the economic entity, for a full justification of the need for the use of those two documents, an analysis of the main indicators of profitability and cash made by the economic entity in the six years period is also necessary. Thus, Table 6 are presents the main profitability rates calculated on the basis of variables from the balance sheet and the profit and loss account, and in Table 7 are concentrated major liquidity rates.

The ascending evolution of all three rates of return are noticeable, calculated for the period 2012-2017, with slight reductions in the year 2013. The values of these rates are evidence of favorable situation of economic entity which reflect a good management of fixed assets and current assets.

Table 7 represents an oscillate evolution of the rate of cash flows from operating activity, with the increasing trend over the period 2012-2014, followed by successive reductions and increases in the period 2015-2017

A similar trend is observed in the two levels of liquidity, with the exception of the year 2015 when the rate of immediate liquidity register a significant decrease. It is precisely the year in which the net cash flow has recorded the highest negative value of all six-year study.

Therefore, both the reference variables in the analysis of an economic entity-revenue, result, cash flow and also the indicators of ratability and treasury, represent

Table 6. Rates of return for the period 2012 - 2017

Name of indicators	2012	2013	2014	2015	2016	2017
Net profit (in thousand RON) PE	30808	31298	51434	63199	71547	73878
Equity (in thousand RON) CP	595182	650754	712425	764522	795713	658400
Financial profitability (in %) = (PN/CP) * 100	5,18	4,81	7,22	8,27	8,99	11,22
Operating profit or loss (in thousand RON) RE	29923	29950	54834	69528	80306	83055
Current assets (in thousand lei) AC	251964	305777	385588	433694	458556	337218
Economic profitability (in %) = (RE/AC) * 100	**11,88**	**9,79**	**14,22**	**16,03**	**17,51**	**24,63**
Operating profit or loss (in thousand RON) RE	29923	29950	54834	69528	80306	83055
Operating income (in thousand RON) VE	379139	405761	403079	413775	412459	414622
Operating revenue profitability rate (in %) = (RE/VE) * 100	7,89	7,38	13,60	16,80	19,47	20,03

Source: authors' processed data taken from www.bvb.ro

Table 7. Rate analysis of cash flow for the period 2012-2017

Name of indicators	2012	2013	2014	2015	2016	2017
Net cash from operations (in thousand RON) NNE	25025	44615	87846	58799	83796	78760
Operating income (in thousand RON) VE	379139	405761	403079	413775	412459	414622
The rate of cash flow from operations (in %) = (6/VE) * 100	6,60	11,00	21,79	14,21	20,32	19,00
Current assets (in thousand RON) AC	251964	305777	385588	433694	458556	337218
Current Liabilities (in thousand RON) DC	40065	48402	54033	46091	51076	66698
General liquidity rate (in %) = (AC/DC) * 100	628,89	631,74	713,62	940,95	897,79	505,59
Monetary Availability (in thousand RON) DB	198767	249494	335368	124121	244598	209847
Current Liabilities (in thousand RON) DC	40065	48402	54033	46091	51076	66698
Immediate liquidity rate (in %) = (DB/DC) * 100	**496,11**	**515,46**	**620,67**	**269,30**	**478,89**	**314,62**

Source: authors' processed data taken from www.bvb.ro

elements of analysis of financial performance, but at the same time the factors that influence the economic decisions of the entity.

In order to conclude on the usefulness of the accounting information representing profit and cash in assessing the financial performance of an economic entity from Romania that applies the financial reporting framework given by the Order of the Minister of public finance 2844/2016 for the approval of the accounting regulations in accordance with international financial reporting standards, a summary of the indicators shown in Table 8 are required.

It is noted in general an evolution of the cash from operating activity higher than the operating result, reporting these variables to the assets held by the entity. This reflects the impact of the expenditures calculated that do not generate payments and the established trade policy in relation to third parties that they have over those two indicators analyzed: in terms of profit and from the perspective of the cash.

In most part of the period, the economic entity has the capacity to receive the income from the operating activity in a higher degree than its capacity to generate profit from operations. As in the previous situation, it appears the influence of accounting policies applied for the recognition of expenditure calculated that do not generate payments and established trade policy in relation to third parties have over those two indicators. Thus, a rate of collecting operating income which is higher than the rate of obtaining profit from operations constitute a favorable aspect in ensuring the continuity of the economic activity of an entity, in achieving the financial performance reflected in the accumulation of cash and equity by default,

Table 8. Synthetic evaluation of financial performance of the economic entity during the period 2012 - 2017

Name of indicators	2012	2013	2014	2015	2016	2017
Rate of Profit or Loss in total assets (in %)	4,58	4,12	6,81	8,32	9,29	11,12
Economic profitability (in %)	11,88	9,79	14,22	16,03	17,51	24,63
Financial profitability (in %)	5,18	4,81	7,22	8,27	8,99	11,22
Operating revenue profitability rate (in %)	7,89	7,38	13,6	16,8	19,47	20,03
Rate of treasury in total assets (in %)	78.89	81.59	86.98	28.62	53.34	62.23
Rate of cash in total assets (in %)	3,83	6,14	10,92	7,04	9,69	10,54
Ratio of cash from operating/operating profit or loss (in %)	83,63	148,96	160,2	84,57	104,35	94,83
The rate of cash flow from operations (in %)	6,6	11,00	21,79	14,21	20,32	19,00
Immediate liquidity (in %)	496,11	515,46	620,67	269,30	478,89	314,62

Source: authors ‘ projection

while the rate of the operating result which is higher than the rate of collection of income from operations for a longer period of time, would not mean performance.

Illustrating the two dimensions of performance in balance, reflects just the ideal situation with all revenue collected, payment of all expenditures, the profit or loss from the operation to retrieve the equivalent of cash. Thus, the entity will have available economic resources needed for investment, which will ensure the sources of profit.

To highlight the role of feedback of the indicators of financial performance established on the basis of a profit and cash, on correlation with the role of feed-forward needed in future management strategies, it is necessary to build also a picture of the trends in time of the financial performance in terms of these two dimensions, in Table 9.

Appreciating the financial performance through various indicators in the two dimensions analyzed is found that its development is not similar, a fact demonstrated by the indicators of the variables in Table 9. In the early years mainly, the trend tends to be the same, even if in the year 2015 is more abrupt in the case of performance from the perspective of cash. For the 2016 and 2017, the indicators of performance show reversal evolution.

In conclusion, the image of the performance seen from the perspective of the outcome is different from the image of the performance seen through the cash, even if sometimes the evolutions may be similar, but at other times they are radically different or even opposite.

Summarizing, it can confirm the usefulness of accounting information provided on both accounting models in assessing the performance of the economic entity, as

Table 9. Indicators for assessing performance in terms of profit or loss and cash

Name of indicators	2013 compared to 2012	2014 compared to 2013	2015 compared to 2014	2016 compared to 2015	2017 compared to 2016	Average of variables
Ratio of operating result in the total assets (in %)	89,96	165,29	122,17	111,66	119,70	121,76
Economic profitability (in %)	82,41	145,25	112,73	109,23	140,66	118,06
Financial profitability (in %)	92,86	150,10	114,54	108,71	124,81	98,20
Operating revenue profitability rate (in %)	93,54	184,28	123,53	115,89	102,88	124,02
Ratio cash in total assets (in %)	160,31	177,85	64,47	137,64	108,77	129,81
Operating cash / Operating Profit or Loss (in %)	178,12	107,55	52,79	123,39	90,88	110,55
Rate of operating cash flows (in %)	166,67	198,09	65,21	143,00	93,50	133,29
Immediate liquidity (in %)	103,90	120,41	43,39	177,83	65,70	102,25

Source: authors ‘ projection

well as the utility of performance indicators based on variables in both the result area and that of the cash, can be confirmed.

SOLUTIONS AND RECOMMENDATIONS

As has been shown, the accounting models used by the economic entity could influence economic decisions, decisions that may affect the future activity if not based on complete information.

Therefore, the authors recommended the drawing up, by all economic entities regardless the size, of both cases, even if for certain economic entities represent only option and collating the information retrieved from there to the decisions taken to influence positively the economic activity of the entity.

FUTURE RESEARCH DIRECTIONS

It should be highlighted that only the calculation and analysis of economic indicators to show which-on the basis of financial result as determined as the difference between income and expenditure or determined as difference between receipts and payments are not sufficient actions to meet the needs of those interested in the economic entity.

Therefore, increasing the quality of accounting information, collating information provided by accrual and cash accounting, identifying new indicators useful in decision-making, they spark interest and desire for further research.

A perspective on the improvement of the quality of accounting information influenced by the accounting model used can be achieved only by a detailed analysis of the indicators mentioned earlier-and others-calculated over an extended period of time and on the results of several economic entities in various sectors of activity, and even different countries.

CONCLUSION

In conclusion, the accrual accounting model expresses the result between effect-income received and not received -and effort -expenditure paid and unpaid. Instead, the cash accounting model express the result of the income and payments without providing information on the receivables and payables of the economic entity.

Thus, the proposed objective, to highlight the role of accounting information produced by the two accounting models, model of accrual accounting in parallel with that of the cash accounting, in forming an idea regarding financial performance was achieved. The presentation of these two models was not limited only to compare it in terms of theoretical importance, drawing up documents to supply accounting information, but on the basis of empirical study. There were highlighted the differences created by the use of certain indicators in measuring financial performance.

The financial-economic performance seen only from the perspective of the result can be the basis for ineffective decisions for the economic entity if you don't count elements arising only in the light of the cash flow. It stands out the importance of taking into account all the information on the outcome of economic activity, both in terms of operating profit or loss and cash flow perspective.

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Chapter 4
Reflections on the Effect of Organizational Restructuring:
Evidence From Albania

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ABSTRACT

This chapter presents a new perspective on processes of change and adaptation to changes in Albanian telecommunications companies in order to maintain their position on the market. The objective of organizational changes, as a continuous process of experimentation and adaptation, is to correlate the capacities of an adaptation company to the business environment. The results of the study have shown that successful management of change is important for the survival and success of any company in the current environment in Albania. To take advantage of the benefits of organizational change stimulated mainly through innovation, companies need to think, act holistically, and make multi-level changes.

INTRODUCTION

The management of organizational change is a continuous process of experimentation and adaptation that has as its main target the correlation of capabilities of an organization to adapt to an environment business (Rojon et al., 2015; Pieper et al., 2017).

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At the same time, contemporary society launches industrial and organizational challenges that trigger a new rhythm of change with many faces (Ericksen & Dyer, 2005; Lee et al., 2016; Pattnaik & Sahoo, 2018). The ensemble of forces as components of the external environment is extremely difficult in the existence and survival of prosperity (Podsakoff & Organ, 1986; Pettigrew et al., 2001; Meuer, 2017).

Moreover, the main concern of the telecommunications system is the efficient management of initiatives of strategic change, and the fundamental difference between the success of an organization's success and the failure of others is merely the ability to adapt to any change (Schulz, 2004; Wu et al., 2011; Briggs et al., 2012). Thus, telecommunications organizations need to permanently study and monitor the external environment to anticipate changes and adapt quickly.

The management of change underlines the problematic of managing change, being in itself a phase that has at least two meanings (Sementelli, 2016). The first one refers to adopting changes in a structural way, planned and organized in order to efficiently implement some methods and systems within an organization in activity, as changes that have to be managed are found within an organization and are controlled by it. The second meaning of management of change refers to the reaction and the answer to changes that the organization does not control them in a small measure (legislative changes, the change of social or political climate, competitiveness, and the changes of economic boundaries).

This article takes a fresh look at empirical studies that have tried to demonstrate the connection between change management and organizational development in telecommunications system and it has three main contributions.

First, in support of the theory, we derive two different testable hypotheses that allow us to formulate a strategy of change within the telecommunications companies in Albania. A better understanding of change was supported by empirical proofs from various authors, including Renn et al. (2014), Weiss (2001), Bloodgood and Morrow (2000), Bolman and Deal (1999), and Chahal et al. (2016), who proposed a model of the stages of change relatively similar to the reaction of employees.

Second, in the investigative approach to new change management challenges in the contemporary economy, we used a complex strategy of research, combining quantitative and qualitative methods of investigation. All the scientific process involved taking into account all the parameters/variables considered useful in identifying the answer to the central research question. The entire research process involved completing specific rules, collection, analysis, and the selection of information that can be proven objectivity with a lot of rigor over a predetermined length of time. The results obtained are valid and reproducible because they are based on a methodology of well-chosen research that lends credibility to the conclusions we have reached at the end of the research period.

Third, using a qualitative model design, we demonstrate that no matter how well the strategies of change are formulated, the implementation of change is a decisive step in its successful realization. Managerial practice has shown that strategy implementation failure is the basic reason why people are anxious about organizational change (Song et al., 2015). More specifically, the diversity of views expressed in the literature specifically referring to change and management helped us determine the best approach for positioning our scientific research on the new change management challenges in the contemporary economy (Guo et al., 2017).

The results of this study show that successful management of change is very important for the success of the organization and its survival in the current business environment (Kemper et al., 2017), also in the private telecommunications environment. In the light of the apparent logical hole, the theories and approaches of management of change that are available for theoreticians and practitioners often argue between themselves, and many of them lack the empirical evidence supported by incontestable hypothesis regarding the nature of contemporary organizational management of change (Munro, 2014).

Finally, our findings have revealed that the transition from passive status to the active status of personnel in an organization is possible when change occurs and is implemented.

The rest of the article is organized as follows: Section 2 provides the materials and methods development; Section 3 presents the results and discusses our findings. Finally, the conclusions are presented.

BACKGROUND

According to specialists, Albanian telecommunications companies as well as other organizations face problems in anticipation and adaptation to changes in their environment (Guillén & Saris, 2013). The factor that causes lack of performance in the field of competitiveness is precisely the inability to recognize the changes that occur in the business environment. Adopting a systematic approach to change contributes to the success of an organization (Bostan, 2016; Popa, 2012). In this respect, they will have to simultaneously manage all the challenges of change. One of the challenges of organizational change is the importance of managing experience in changing personnel (Strauss et al., 2012; Jung et al., 2016).

Through major changes with impact on all members of an organization, it is trying to eliminate uncertainties (Wu & Chen, 2014). The insuring conditions that Albanian companies remain on the market and can adapt to market requirements are: (1) good knowledge of the company; (2) transparency of management processes in order to increase the quality of services; (3) creation and diversification of internal mechanisms of reaction to disruptive forces outside the company (Popa, 2012).

Many specialists have approached the concept of management of change (Frese & Fay, 2001; Kotey & Slade, 2005; Paton & McCalman, 2008; Pfeffer, 2012). However, organizational change is far from being understood in terms of dynamics and effects in time, of the processes that occur, of discontinuity and context. The technical change in the industry of services represents an area poorly represented in the literature of speciality, despite the importance that innovation and employment have (Bakotic & Krnic, 2017).

RESEARCH METHODOLOGY

The design of our model was based on the view of Kets de Vries (2003), who stated that change is based on five categories of behaviour: behaviour of concern, confrontation behaviour, behaviour of classification, behaviour of convergence of the efforts to achieve the organization's goals, and behaviour of change.

Although some statistical works ignore the existence of improbability techniques (for reasons that are related to the impossibility of applying the theory of probability), because of the characteristics specific to the socioeconomic domain—which sometimes make it almost impossible to fulfil the conditions of compliance of a sample that will not violate the laws of probability—we believe that improbability techniques are important and useful for this study. For this phase of the study, we used the technique of sampling improbable (non-random), that is, proportional quota sampling, because the literature considers it adequate for exploratory studies given its greater accessibility and low cost.

Modifying the operational framework will achieve the scientific approach required the development of a questionnaire to obtain the views of respondents, and the selected respondents represented overall characteristics of the included population. The model of research proposed by this study started from the premise highlighted in the literature that there is a directly proportional correlation between organizational change and organizational culture.

The logical structure of the questionnaire allowed us to quantify each item from the process of implementation of change by subdividing the components and classification of variables according to the criterion of causality. The evaluation of the respondents' opinions was done using the 5-level Likert scale to avoid their reluctance: strongly agree, agree, indifferent, disagree, and strongly disagree. All questions were closed-ended questions. The distribution and filling of the questionnaires were conducted from July 2018 to October 2018 in Albanian telecommunications companies (Albtelecom, Eagle Mobile, Plus Communication, Telekom Albania).

To ensure the objectivity of the answers, the respondents were provided with a climate of anonymity.

The adoption of empirical research conducted on the four sections (D - the level of acceptance of change, E - appreciation towards the way of communication of change, F - evaluation of determining factors in the success of change, G - evaluation of the level of resistance to change) of the hypothesis (H_1 The evaluation of the attitude towards change is positively influenced by the necessity of change within the organization, and the circulation of information within organization) allowed the calculation of scores for each item facilitated our analysis of the scores.

Based on the results obtained by submitting the scores and comparing them with those identified in the strong points (SP) and weak points (WP), we can proceed to the validation and invalidation of items in the next step. According to the research model, the questionnaire was structured in a logical sequence in seven sections; in step two, the items established in determining the interdependence of components that allow the identification and characterization H_1 will be analysed and interpreted.

RESULTS

Triggering the process of change in companies requires identifying the main problems the companies face and the opportunities for the establishment and development of collaborative relationships between specialists in change management and the members of the organization that is going to make the change (Latham & Pinder, 2005; Belbin et al., 2012; Leyer et al., 2017).

The results of the analysis and their interpretation were carried out in two stages:

1st Stage: Identifying the strengths and weaknesses of management of change in the Albanian telecommunications companies in terms of the important motivation in the success of change and the attitude toward change.

2nd Stage: Analysis and interpretation of items for determining the management of change in organizations according to H_1 using statistical and econometric methods.

The hypothesis is explained by the following equation:

$$H_1 = \beta_0 + \beta_1 (Y_1^D) + \beta_2 (Y_1^E) + \beta_3 (Y_1^F) + \beta_4 (Y_1^G) \quad (1)$$

where:

Y_1^D = the need of change within the organization—the values show the average of items 1, 4, 5, 6, 7, 8, 9, and 10;
Y_1^E = the circulation of information within the organization—the values show the average of items 2, 4, 5, 6, and 9;
Y_1^F = level of effort needed to eliminate barriers in the way of change—the values present the average of items 1, 2, 3, 5, and 6; and
Y_1^G = the behavior of the personnel responding to change—values present the average of items 3, 4, 6, 7, 8, 10, 13, 14, 15, and 17.

The modelling of the equation was done by selecting the items validated in Table 1 and the resultative ones, Y_1^D, Y_1^E, Y_1^F, and Y_1^G, that involved a multicollinear direct equation. Using the regression linear function from Excel, we estimated the parameters and the statistics of additional regression for Y_1^D, Y_1^E, and Y_1^F.

Besides, β1, β_2, β_3, and β_4 parameters are expected to be positive (see Table 2).

Table 1. Indicators of central and variation tendency regarding the items – validation/invalidation items for H_1

Symbol	Items	Indicators of central and variation tendency				
		Media	Standard deviation	Coeff. de variation%	PF/PS	Validation/invalidation
Section D – The level of acceptance of change (Y_1^D)						
$x_{1.1}^D$	Is your organization in a process of change?	3.70	0.94	0.88	PF	Validation
$x_{1.2}^D$	In your organisation is there necessary to implement an organizational change?	3.50	0.99	0.98	PS	Invalidation
$x_{1.3}^D$	The change in the organization will end successfully?	3.40	0.81	0.66	PS	Invalidation
$x_{1.4}^D$	In general I consider changes to be something positive	4.02	0.71	0.51	PF	Validation
$x_{1.5}^D$	I like to try new and different things	4.30	0.53	0.28	PF	Validation
$x_{1.6}^D$	Every time life becomes routine I always find ways to change something	3.98	0.83	0.69	PF	Validation

continued on following page

Table 1. Continued

Symbol	Items	Indicators of central and variation tendency				
		Media	Standard deviation	Coeff. de variation%	PF/ PS	Validation/ invalidation
$x^{D}_{1.7}$	I would prefer to be surprised in any way rather than get bored	4.05	0.69	0.47	PF	Validation
$x^{D}_{1.8}$	I often change my mind	3.10	0.82	0.67	PS	Invalidation
$x^{D}_{1.9}$	I change my opinion if convincing arguments are brought to me	3.90	0.81	0.66	PF	Validation
$x^{D}_{1.10}$	My opinions are consequent in time	3.97	0.52	0.27	PF	Validation
Section E – Appreciation towards the way of communication of change (Y^{E}_{1})						
$x^{E}_{1.1}$	I feel comfortable to share my ideas directly with the members of the superior management	3.88	0.80	0.65	PS	Invalidation
$x^{E}_{1.2}$	In most of the situations I receive information I need to fulfil my tasks	3.94	0.82	0.67	PF	Validation
$x^{E}_{1.3}$	The managers don’t have any hesitation to communicate information about the organization to the subordinates	3.83	0.92	0.84	PS	Invalidation
$x^{E}_{1.4}$	A lot of the information I receive every day is detailed and precise	3.94	0.76	0.57	PF	Validation
$x^{E}_{1.5}$	I receive the information I need to fulfil my tasks on time	3.88	0.72	0.51	PF	Validation
$x^{E}_{1.6}$	It doesn’t happen to be late in fulfilling my tasks due to the lack of the information I need	4.07	0.81	0.66	PF	Validation
$x^{E}_{1.7}$	The greatest part of daily communication I receive from the superior management	3.83	0.74	0.55	PS	Invalidation
$x^{E}_{1.8}$	This organization often supports “polis” meetings where the employees meet to share information	2.98	0.92	0.84	PS	Invalidation
$x^{E}_{1.9}$	The most part of the information I need I receive through formal channels	3.78	0.89	0.80	PF	Validation

continued on following page

Table 1. Continued

Symbol	Items	Indicators of central and variation tendency				
		Media	Standard deviation	Coeff. de variation%	PF/ PS	Validation/ invalidation
Section F – Evaluation of determining factors in the success of change (Y_1^F)						
$x_{1.1}^F$	Recruitment and selection of personnel according to well defined criteria	3.93	0.82	0.67	PF	Validation
$x_{1.2}^F$	Training programs	4.54	0.50	0.25	PF	Validation
$x_{1.3}^F$	Development of leader abilities	4.17	0.70	0.49	PF	Validation
$x_{1.4}^F$	Management of performances	4.30	0.69	0.48	PS	Invalidation
$x_{1.5}^F$	Compensation of employees	4.43	0.62	0.39	PF	Validation
$x_{1.6}^F$	Stimulation of the involvement of the employees	4.30	0.73	0.53	PF	Validation
Section G – Evaluation of the level of resistance to change (Y_1^G)						
$x_{1.1}^G$	Great part of the information I receive daily is transmitted to the inferior levels through a kind of “colander”	2.80	1.07	1.14	PF	Invalidation
$x_{1.2}^G$	I usually find out the news of the company with a few months later	2.29	1.28	1.63	PF	Invalidation
$x_{1.3}^G$	Changing plans seems a real drudge for me	2.69	1.19	1.41	PS	Validation
$x_{1.4}^G$	I often feel a little bit uncomfortable even when it is about changes which. possibly can improve my life	2.62	1.16	1.35	PS	Validation
$x_{1.5}^G$	When someone puts pressure on me to change something. I have the tendency to oppose myself. even if in the end it will be in my advantage	2.56	1.12	1.26	PF	Invalidation
$x_{1.6}^G$	Sometimes I have the tendency to avoid changes of any kind even if I know I will benefit from them	2.07	1.12	1.26	PS	Validation

continued on following page

Table 1. Continued

Symbol	Items	Indicators of central and variation tendency				
		Media	Standard deviation	Coeff. de variation%	PF/ PS	Validation/ invalidation
$x_{1.7}^{G}$	When I am informed of the changes of plans I start to be tensed	2.71	1.08	1.18	PS	Validation
$x_{1.8}^{G}$	When things do not go according to the plans I am stressed	2.99	1.03	1.06	PS	Validation
$x_{1.9}^{G}$	If my supervisor changed the evaluation criteria of performance I would probably feel uncomfortable	2.59	0.10	0.93	PF	Invalidation
$x_{1.10}^{G}$	If I were informed that there will be some significant changes at work I would probably feel stressed	2.80	0.98	0.95	PS	Validation
$x_{1.11}^{G}$	I would chose an ordinary day instead of a day with unexpected events anytime	2.80	0.98	0.96	PF	Invalidation
$x_{1.12}^{G}$	Things would go better if your supervisor changed?	2.28	1.40	1.95	PF	Invalidation
$x_{1.13}^{G}$	Do you say that you do not have time? When in fact you are not in a mood?	2.08	1.39	1.94	PS	Validation
$x_{1.14}^{G}$	Do you make your breaks as long as you can?	1.93	1.41	2.01	PS	Validation
$x_{1.15}^{G}$	Do you do overtime?	3.63	1.22	1.48	PF	Validation
$x_{1.16}^{G}$	Are you late for work?	2.22	1.40	1.96	PF	Invalidation
$x_{1.17}^{G}$	Is my job too tiring?	2.58	1.01	1.01	PS	Validation

$$H_1 = 0.44 + 0.20\,(D) + 0.10\,(E) + 0.25\,(F) + 0.34\,(G)$$

The influence of the first factor on the variation of the resultative factor H_1 is higher and is justified by identifying the behavior of the personnel in response to change before we can determine the level of effort needed to eliminate barriers of change, the need for change within an organization, and the circulation of information within the analyzed organizations.

Table 2. Indicators of the central and variation tendency regarding Y_1^D, Y_1^E, Y_1^F, and Y_1^G

Symbol	Items	Indicators of central and variation tendency			
		Coefficients	Multiple R	R Square	F
Section D – The level of acceptance of change (Y_1^D)					
	Intercept	-134.32	0.72	0.77	19.42
$x_{1.1}^D$	Is your organization in a process of change?	-20.46			
$x_{1.4}^D$	In general I consider changes to be something positive	-31.31			
$x_{1.5}^D$	I like to try new and different things	13.94			
$x_{1.6}^D$	Every time life becomes routine I always find ways to change something	64.08			
$x_{1.7}^D$	I would prefer to be surprised in any way rather than get bored	-12.28			
$x_{1.9}^D$	I change my opinion if convincing arguments are brought to me	-33.25			
$x_{1.10}^D$	My opinions are consequent in time	83.43			
Section E – Appreciation towards the way of communication of change (Y_1^E)					
	Intercept	51.91	0.68	0.47	66.47
$x_{1.2}^E$	In most of the situations I receive information I need to fulfil my tasks	68.33			
$x_{1.4}^E$	A lot of the information I receive every day is detailed and precise	72.56			
$x_{1.5}^E$	I receive the information I need to fulfil my tasks on time	-112.79			
$x_{1.6}^E$	It doesn't happen to be late in fulfilling my tasks due to the lack of the information I need	-17.99			
$x_{1.9}^E$	The most part of the information I need I receive through formal channels	42.42			

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Table 2. Continued

Symbol	Items	Indicators of central and variation tendency			
		Coefficients	Multiple R	R Square	F
Section F – Evaluation of determining factors in the success of change (Y_1^F)					
	Intercept	193.28	0.82	0.60	8.64
$x_{1.1}^F$	Recruitment and selection of personnel according to well defined criteria	13.29			
$x_{1.2}^F$	Training programs	22.97			
$x_{1.3}^F$	Development of leader abilities	-48.31			
$x_{1.5}^F$	Compensation of employees	-12.62			
$x_{1.6}^F$	Stimulation of the involvement of employees	22.46			
Section G – Evaluation of the level of resistance to change (Y_1^G)					
	Intercept	9.15	0.65	0.80	15.93
$x_{1.3}^G$	Changing plans seems a real drudge for me	-74.23			
$x_{1.4}^G$	I often feel a little bit uncomfortable even when it is about changes which. possibly can improve my life	-5.89			
$x_{1.6}^G$	Sometimes I have the tendency to avoid changes of any kind even if I know I will benefit from them	22.90			
$x_{1.7}^G$	When I am informed of the changes of plans I start to be tensed	75.76			
$x_{1.8}^G$	When things do not go according to the plans I am stressed	43.39			
$x_{1.10}^G$	If I were informed that there will be some significant changes at work I would probably feel stressed	-40.27			
$x_{1.13}^G$	Do you say that you do not have time? When in fact you are not in a mood?	35.51			
$x_{1.14}^G$	Do you make your breaks as long as you can?	2.11			
$x_{1.15}^G$	Do you do overtime?	8.87			
$x_{1.17}^G$	Is my job too tiring?	-24.57			

As a result of the findings, 62.08% of items were validated. Due to the fact that the hypotheses were validated, there was no need for subsequent re-formulations. Thus, our findings have indicated that there is a need for a model of change implementation.

SOLUTIONS AND RECOMMENDATIONS

From the perspective of change, the complex problems managers face cannot be analysed objectively and continuously within the current tasks (Wang & Ahmed, 2003). Each manager forms a set of beliefs and specific premises that are relevant to the organization where he or she works (Basten & Haamann, 2018).

For Albanian telecommunications companies, the change, motivation and performance paradigm has a mandatory cultural character. Creating a model of value compatible with the basic rules of market economy, forming and consolidating a strong managerial organizational culture within these companies must be declared and sustained through concrete actions. Ensuring survival through a strong organizational culture requires an attachment to value even in the sacrifice of short-term financial interests as in the case of Western firms.

Over the years, this paradigm has included different categories of premises that have strengthened the history and success of organizations by creating a set of actions and responses to those signals that managers can interpret and consider relevant to their decisions. In any case, the leaders of the future need to understand the depth and impact of what managing change in organizational development means in their pursuit of performance, productivity growth, and selection and motivation of the human resource appropriate to the specific business.

A key element in transferring a company to another economic level or that can help the company in a situation that can remove it from the market is about: (1) evolving, developing, gaining new market segments; (2) maintaining market position; (3) the influence of a strong managerial culture. Managerial culture contributes significantly to guiding business change processes, especially through managers' actions and decisions.

Among the qualities and knowledge gained by outstandingly successful specialists in the field of organizational change we can list: (1) the knowledge of human communication; (2) knowledge of human behavior; (3) abilities to set goals, diagnosis and solving problems; (4) other qualities: objectivity, flexibility, imagination, conscientiousness, charisma, self-confidence and people.

A paradigm like this can be more easily understood by those outside telecommunications companies than by those inside them, because the elements that compose self-explanatory are understood by itself. In this way, managers receive a great deal of information that is contradictory in most cases due to the interpretation of the information through the paradigm. Albanian telecommunications companies use the paradigm to formulate their strategies, considering the paradigm as a tool of interpretation and formula of action.

CONCLUSION

Organizational change consists of establishing a new model of thinking and behavior (Argote, McEvily & Reagans, 2003; Rerup & Levinthal, 2014). The confrontation between the old model and the new organizational model can lead to oversized resistance being subject to failure (Harms & Credé, 2010). That is why designing a plan of change is essential by incorporating it into an organizational context. Given the changes that are constantly changing in the national and international business environment, it is a good idea for modern telecommunications companies to keep up with the changes, as they may lose their development opportunities. This can lead to a positive change in the mentality of all employees, benefiting from financial and competitive advantages, which gives companies a high degree of competitive advantage and efficiency.

Due to global competition, technological advances and economic change, specialists need to redesign the organization map, change organizational culture, and align strategies to external demands and opportunities. By aligning organizational development practices and techniques, it is possible to adapt to the values and cultures of the organizations in which they are to be implemented. Specialists need structures, systems, strategies and systematic and congruent organizational models to successfully implement changes in organizational development.

According with the results, the first and most important change will be that they will no longer be workplaces but places to work so that the human resource involved achieves maximum productivity yields. The performance measurement system is affected by the changes made in an organization, just as in the case of the transition to a market economy. The synergy of economic performance brings together those management tools that best meet the new challenges and are based on the relationship strategy-organizational culture.

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Chapter 5
Throughput Accounting and Green Reporting:
Decision Support for Enhancing Environmental Performance

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ABSTRACT

This chapter highlights some aspects of the contribution of TA to enhancing environmental performance. The main objectives of this chapter are to highlight aspects related to the TA and its implications for its use as an efficient method in ensuring decision support in the environmental reports of an economic entity. This implies the transition to a larger geographic scale of national economies and, implicitly, the global economy, from a linear economy to a circular economy that should not only involve the recycling of resources but also the green reporting requirement. All aspects presented by the authors are based on the existing specialized literature, university studies, and specialty from all over the world. A new conceptual and empirical framework has been developed as a result of the issues debated and presented by the authors, whose purpose is to extend the knowledge of specialists from all over the world, as well as challenging other equally interesting new research themes.

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INTRODUCTION

By merging between different management accounting methods or systems, more viable and effective methods have been created, with a particularly important contribution to providing real, basic and effective information needed to ensure decision-making in the short or long term. As a result of the new methods, new alternatives for monitoring and measuring the performance, including the environmental performance, have been developed. This chapter aims at identifying the general framework needed to adapt the TA/TOC principles to the principles of the Activity Based Costing Method, both in terms of costs and results, and environmental reporting. Taking into account the advantages and limitations offered by traditional costing calculation methods, a common framework for integration between the two approaches was identified, also taking into account the theoretical and empirical studies existing in this field in the international literature. The objectives of this chapter are to: (1) highlight the implications between *production capacity accounting (TA) as a reporting tool and integrated reporting, and (2) achieve TA/TOC integration with the ABC method in determining costs and results, including the environmental reporting.*

BACKGROUND

Throughput Accounting (TA) as a Reporting Tool

From the proposal of productivity accounting by Goldratt et al. (1992), its concept and principles were promoted by CIMA and also appear in the studies of some specialists who define it as: a method of measuring performance that refers to production and other costs of production capacity. The cost of production capacity accounting products refers to the use of key resources by various products (CIMA, 1991; Drury, 1992; Yoshikawa et al., 1993; Bromwich and Bhimani, 1994). Productivity accounting evolved as an emerging accounting practice aimed at improving profitability by taking into account constraints that impede production capacity (Boyd and Gupta, 2004; Ali and Dubey, 2010).

There are many managerial accounting techniques available to help managers in decision-making on various planning, assessment and control activities (Cokins et al., 2001). Part of the managerial accounting collects costs and assigns them to various activities or products through various methods such as: Activity-Based Costing (ABC), Process Costing, Standard Costing, Kaizen Costing, TA and others (Boyd and Cox, 2002). By adapting the TA concept to these methods, managers can identify the most cost-effective method of costing and can make more effective decisions. The only concern of managers is to identify that accounting technique that provides accurate information on product cost, maximum profit and customer service, including cost-effective product mix decisions (Lea and Min, 2003). Specialist studies focused on constraint accounting (TOC) to maximize the profits of a company, using TOC to finance a Supply Chain (Mateen and More, 2013).

Considered as a smart business method, productivity accounting is often used as a tool for increasing performance and maximizing corporate profits. As an internal reporting tool, productivity accounting has a dual role: (1) practical and effective where needed; (2) helps to substantiate and make better decisions from the company's management based on three components: production capacity, inventory and operational expenses.

Environmental Disclosure: Implications of Management Accounting and Reporting

Environmental information (EI) should help society and companies recognize the impact of business decisions on the environment (Milne and Patten, 2002; Kuk et al., 2005). The need for permanent information from the environmental information system helps managers identifies environmental hazards, determine the cost structure and investment that pose challenges for companies (Carreira et al., 2014). Environmental Standards Requirements, issued by the International Organization for Standardization (ISO), form the basis of research into companies' environmental responsibility. The disclosure of environmental information is based on document analysis (Bowen, 2009).

The dissemination of environmental information has been the subject of several specialist researches that have highlighted aspects such as: spreading among SMEs without addressing them in annual reports (Sahay, 2004, Chan and Welford, 2005); Challenges for those companies whose monetary objectives are centered on the environment (Lamberton, 2005; Cho and Patten, 2007); and the subjective possibility of reporting on environmental issues, (Lamberton, 2005; deVilliers and van Staden, 2006) and the fact that there is a lack of awareness of environmental issues lack of transparency. These aspects of environmental reporting highlight several variables based on financial accounting or business success factors of companies (Gray, 2002). The most important challenge about the supply of environmental data is not always in the collection of data, but in the erroneous collection or in the impossibility of describing and understanding them (van Dick et al., 2014).

Some authors consider that the disclosure of environmental issues has a potential impact on companies' economic, financial and social performance (Gray, 2006), as sustainability reporting could improve their behaviour. Other authors consider that the relation between environmental disclosure, environmental performance and economic performance relates to each other, two by two (Al-Tuwajiri et al., 2004). Users of financial information and company shareholders need to know or recognize the added value of environmental and social information and can be easily achieved through the annual report (de Villiers and van Staden, 2006; Barros, 2008).

According to the studies carried out by specialists, there is a direct link between the size of a company and the degree of disclosure of environmental information as: larger firms reveal more environmental information than small firms are subject to greater pressure from the general public (Patten, 2002 Sahay, 2004; Monteiro, 2007; Barros, 2008; Cho et al., 2010); increased visibility leads to a better reputation of the company (Knox et al., 2005; Sánchez and Sottorrío, 2007).

Also, a direct link between the economic sector in which the company operates and the degree of disclosure of environmental information has been identified by most specialists: correlation with best practices of disclosure of the environmental information (Sahay, 2004, Knox et al., 2005, Monteiro, 2007) the environmental impact of large economic sectors subject to environmental legislation (Barros, 2008); the obligation to publish environmental performance and actions (Monteiro, 2007).

There are very few studies conducted by specialists who claim that there is a direct link between profitability and disclosure of the environmental information (Teoh et al., 1998; Suwaidan et al., 2004), while other studies express a reserved degree of support or insufficient documentation on this link (Monteiro, 2007; Barros, 2008; Cho et al., 2010). There are a number of factors whereby environmental issues can have an impact on companies' financial performance, such as: improved revenue, reduced/increased costs, and failure costs.

- **Improved Revenue:** Increased sales of a company can be closely related to products or services that meet the needs or demands of environmental customers. Also, the sales growth can also be attributed to the sale of super-organic products, or may be the consequence of improving the reputation of the company's business. The failure of taking into account the minimum of environmental standards by a company's management may result in long-term loss.
- **Reducing/Increasing Costs:** Increased costs can be attributed to compliance with legal requirements and regulations or additional costs to improve the company's image from environmental point of view. Some of these costs can be borne by various government grants, thus helping to save potential long-term losses by companies. Cutting costs can be done by paying increased attention to planning and utilizing a company's resources. This can be done by continuously improving certain processes running within the company, thus contributing to saving additional costs.

- **Failure Costs:** These failure costs result from poor or faulty environmental management, unable to manage cleaning or depollution costs as a result of an environmental disaster.

There are *internal costs* that have a direct impact on the reporting situation of a company, such as: (1) costs of improving systems and checks to prevent penalties or fines; (2) costs of discharging waste; (3) product take back costs; (4) regulatory costs: surcharges incurred as a result of non-fulfilment of environmental conditions; (5) costs of obtaining environmental permits; (6) back-end costs of environmental projects (commissions or cancellation costs). There are also *external costs* that have an indirect impact on a company's reporting situation, costs that are imposed by the company and not generated by the company, such as carbon emissions, energy and water use, forest degradation, health, social assistance.

Integrated Reporting

By the 1970s, the corporate governance report had to respond to a variety of accountability and information requirements from: corporate leaders, creditors, suppliers, employees, the local community, and the public. Some authors have argued that there are a number of positions that companies or, more specifically, their leaders can consider, and especially through Corporate Social Responsibility (CSR) (Gray et al., 1996). They suggested that corporate reports should adopt a broader position on accountability and accounting and move away from one based on a narrow fiduciary perspective where the reporting function is limited to the preparation of financial reports. This should take into account corporate responsibility for resources and their potential impact on the economic, social and environmental field.

Other authors have approached financial reporting and the terms used were sometimes interchangeable: green or environmental accounting (Owen et al., 1997), Triple Bottom Line accounting (TBL) (Elkington, 2004), sustainability accounting or CSR (Unerman et al. 2007). The economic impact in a sustainability report presents the impact on local employment and living standards as a result of the organization's operations. The social impact includes employee terms of service or the level of social investment or interaction between the company and the community. The environmental impact includes the quality of discharged wastewater or the level of greenhouse gas emissions generated by operations.

According to TBL, the concept of sustainability includes preserving the natural environment and managing the natural resources, but also the business systems, long-term models and behaviours, creating value by preserving or maintaining economically, socially and environmentally defined capital (Owen, 2013). TBL suggests that a company has three different situations: the status of the traditional profit account, the social responsibility account, and the company's liability account for the environment. In other words, TBL or Green Accounting or Environmental Accounting focuses on financial (external) reporting and management accounting (by providing an assessment but also managing social and environmental costs and impacts on the company's operation).

Green Reporting

In domestic and international literature, ecology specialists have debated and published numerous studies on how to report environmental information. In order to meet demanding customer information and entity management requirements and to provide reliable and relevant information, it is necessary for the current reporting model of information to be much easier to understand and analyse by the end-users (Căpușneanu et al., 2015).

Thus, some of the authors have analyzed in their studies the environmental reporting practices in terms of the characteristics of the entities presenting environmental information (Cooke, 1993, Wallace and Naser 1995, Deegan and Gordon, 1996; Adams et al., 1998; Ahmed and Courtis, 1999; Depoers, 2000). Other authors have been studying the link between environmental performance and environmental information disclosure (Guthrie and Parker, 1990; Brown and Deegan, 1998; Hughes et al., 2001).

Regardless of the area of specialists' analysis, these studies have highlighted several advantages and drawbacks regarding the adoption of documents and environmental reporting. A number of specialists have also analysed in their studies the variation in environmental reporting across entities in different countries (Fekrat et al., 1996; Stitle et al., 1997; Williams, 1999; Buhr and Freedman, 2001; Holland and Foo, 2003, or Jorgensen and Sodorstrom, 2006, Yamamoto et al., 2007) or the variation of environmental reporting in a given country for different entities in the same sector or fields of activity (Gamble et al., 1995, Deegan and Rankin, 1996; Walden and Schwartz, 1997; Deegan, 2002; Burrit et al., 2002, Taylor and Shan, 2007).

Due to the absence of generally accepted reporting standards, most companies have tried and adopted a number of their own unique methods such as: cross-balance reporting (Kunert, Germany or NSK-RHP, UK); performance-based reporting (British Airways, BT, UK, Neste Fortum, Finland or Novo Nordisk, Denmark); on-board Eco taped reporting (Capusneanu et al., 2015).

Decarbonisation of the Atmosphere: Sine Qua Non of Sustainability

The pollution of the atmosphere, the hydro-phoresis and the pedosphere resonates both on the economy and the urban centres, as well as on the natural ecosystems, so that the present problems of mankind are the direct consequence of the relationship between humanity and its natural habitat (Constantin, 2013; Draškovic et al., 2013). Changes resulting from human activities on the terrestrial system include: climate change, changing biogeochemical cycles, modifying the hydrological cycle and water resources, increasing the Planetary Ocean level, enhancing the El Niño - Southern Oscillation phenomenon (Londhe, 2018). In turn, these changes have effects on natural living conditions, but also economic, social and political consequences.

The public perception of these effects is relatively recent since 1970, so managers have begun to realize that they have not only an economic role but also a socio-ecological role (Constantin et al., 2016). Environmental protection, social equity and well-being have become priorities (Stehr and Hans von Storch, 2015) in ensuring the concept of sustainable development. In the process of sustainable development, the essential characteristics are the protection of the environment and, particularly, of the atmosphere. Variability and climate change are global processes that human society faces in this century.

The Association of Sustainable Development on Climate Change was held at the Rio de Janeiro Conference in June 1992 (Bogdan, 2017) when the United Nations Framework Convention on Climate Change was adopted, based on the Intergovernmental Panel on Climate Change (IPCC) First Assessment Report developed in 1990, known under the acronym FAR (IPCC, 1992). Climate change is caused by natural causes such as solar energy variation and Earth's orbital parameters, volcanic eruptions and the interaction of components of the climate system, as well as the anthropogenic causes of atmospheric pollution and changes in the terrestrial area (asphalt, construction materials, increasing urban area, decreasing forest area, etc.). According to IPCC reports published in 1990, 1995, 2007 and 2013-2014, human activities are primarily responsible for climate change, so the 95% responsibility accounted for in the Fifth Assessment Report (AR5) (IPCC, 2013). In the last two reports, AR4 and AR5, the IPCC, the main anthropogenic cause that has led to climate change variability and climate change, is greenhouse gas (IPCC, 2007 and 2013). The atmosphere, through meteorological conditions, acts as a receptor, conservative or vehicle of pollutants (Constantin et al., 2017), diminishing or intensifying its pollution.

In the atmosphere, there have long been natural concentrations of greenhouse gases or radiative-active gases that allow the passage of short wavelength solar radiation and absorb the long-terrestrial earth radiation which it has retreated both in outer space and back into the system land. In the absence of naturally occurring greenhouse gases, the Earth would be a cold planet with a global average temperature of -18°C (Peixoto and Oort, 1992). In fact, because of the natural greenhouse effect, the global average equilibrium temperature is 15°C. This natural greenhouse effect, which increases the global mean surface temperature by 33°C, makes it possible to develop life on Terra (Bojariu et al., 2015). Greenhouse gases are naturally found in atmospheric composition, such as water vapor (H_2O) that reaches up to 5% of the volume of the atmosphere, carbon dioxide (CO_2) representing 0.03% of the volume of the atmosphere, methane (CH_4), nitrous oxide (N_2O) and ozone (O_3). A difference of 33°C is ensured by natural greenhouse gases with the following contribution: 20.6°C from water vapor, 7.2°C from carbon dioxide, 2.4°C from ozone, 1.4°C from nitrous oxide, 0.8°C from methane and 0.6°C from other gases (Busuioc et al., 2010). They are complemented by greenhouse gases from economic activities that have emerged since 1940 as a result of the development of the petrochemical industry, being compounds of chlorine and fluorine carbon, commonly known as chlorofluorocarbons (CFCs). The additional greenhouse effect due to the industrialization of society is called anthropogenic greenhouse effect.

For the last 1000 years before the industrial revolution, the share of greenhouse gases has remained relatively constant. Significant increases have been recorded since 1750, and especially in the second half of the 20th century, as a result of the burning of fossil fuels, where CO_2 has been set for millions of years, the intensification of road traffic and the exploitation of natural resources. So, over the past 100 years, GHGs have steadily increased from 290 parts per million (ppm) to 380 ppm, and by 2050 the concentration is expected to double if it does not intervene in the process of reducing GHG emissions. In the last 150 years there has been a rise in CO_2 as it did not occur in 420,000 years. This amount of CO_2 in the atmosphere has increased by 40% compared to the pre-industrial age, and the amount of CH_4 has doubled (IPCC, 2013) as a result of human activity.

Carbon dioxide is the most important greenhouse gas (Mandal and Gupta, 2016), naturally occurring in the atmosphere, in carbonated waters, in volcanic gases. It has as generating sources: volcanic activity, natural biochemical transformations in the soil, human and animal respiration, and industrial process emissions. CO_2 is also consumed in the process of photosynthesis and dissolution in seawater and oceans with the transformation into bicarbonate. CO_2 emissions in industry account for 70-75% of the total quantity released into the atmosphere (Rădulescu, 2008). It is estimated that the share of CO_2 in the anthropogenic greenhouse effect is 50% (Rădulescu, 2008), and its role in the global climate change was highlighted by the

Swedish chemist Svante Arrhenius at the end of the 19th century (Busuioc et al., 2010). If during the pre-industrial period the global atmospheric CO_2 concentration was below 300 ppm, at the end of 2017 this concentration reached the 407 ppm threshold, far exceeding the limits of natural variability over the last 20,000 years (Figure 1). Figure 2 shows the evolution of the average monthly CO_2 concentration over the period 1980-2017, with an annual growth rate of 2 ppm after 2012 (National Oceanic and Atmospheric Administration, 2018).

In direct relationship with this increase in GHGs, there were significant changes in the average and statistical parameters for the physical quantities that characterize the geosystem, called climatic changes (Bojariu et al., 2015). From 1880 to 2012, global air temperature increased by 0.85°C (Figure 3) and at Europe-wide average increased by almost 1°C (IPCC, 2013), indicating a rate above 0.6°C of the twentieth century (Bogdan, 2017).

Figure 4 highlights these temperature differences globally between the end of the 19th century and the second decade of the 21st century. Depending on the different scenarios of greenhouse gas emissions, as a result of the economic and social development assumptions, and based on complex global and regional climatic models, projections for the 21st century of global climate change have been made. Thus, for the last decade of this century compared to the period 1850-1900, global average heating is projected to be between 1.5 and 2.0°C (IPCC, 2013).

Global warming is complemented by the increase of the Planetary Ocean between 0.2 and 0.82 m and the increase in intensity and frequency of severe weather episodes such as droughts, floods, tropical storms, cold or heat waves, etc. (IPCC, 2013).

Figure 1. Global concentration of carbon dioxide (CO_2)
Source: World Meteorological Organization (WMO) Greenhouse Gas Bulletin, 2017

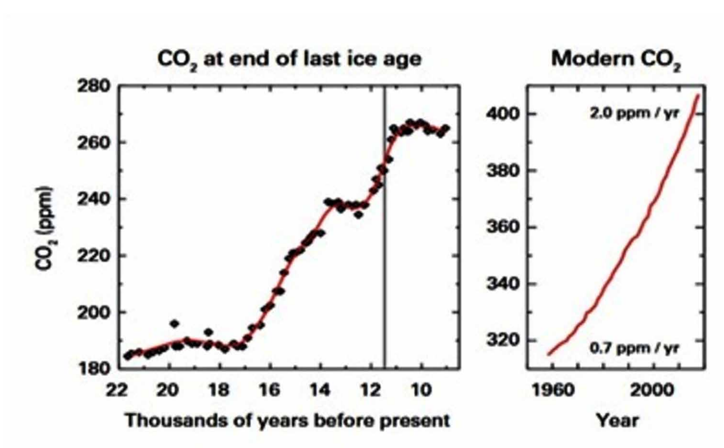


Figure 2. Monthly average concentration of carbon dioxide (CO_2), 1980-2017
Source: National Oceanic and Atmospheric Administration (NOAA), 2018

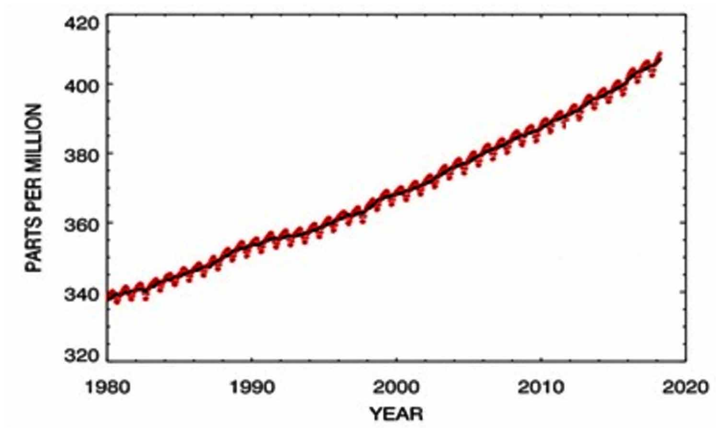
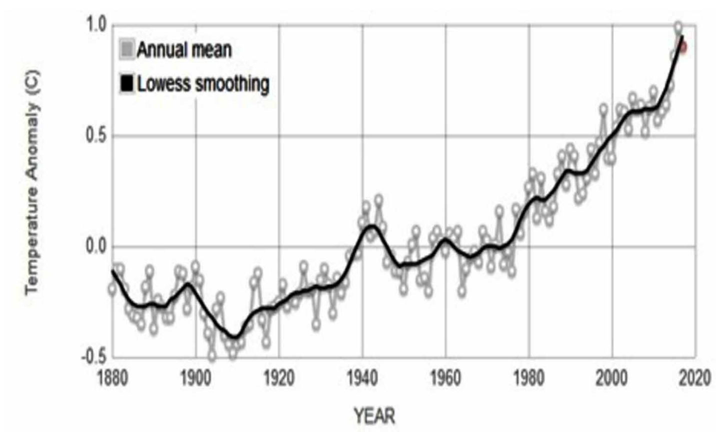
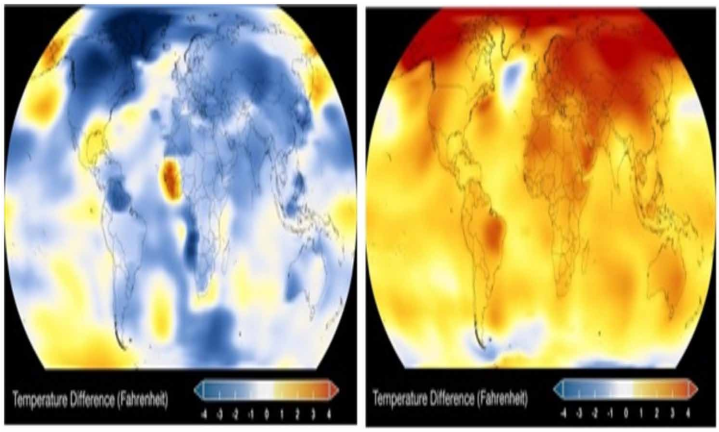


Figure 3. Global average temperature, 1880-2017
Source: NASA's Goddard Institute for Space Studies, 2018



All these aspects defining global climate change have repercussions on the economy and society so that decarbonisation of the economy becomes a sine qua non condition of sustainability. The European Commission's Green Paper on the Emissions Trading Scheme within the European Union identifies carbon leverage as an effective tool for mitigating and combating climate change as early as 2000 as a way to implement the Kyoto Protocol (Pernigotti, 2015). Such a carbon tax was introduced in Sweden in 1991 of € 29/tonne of CO_2 and increased to € 125/tonne of CO_2 in 2014, being the largest in the world. The effect was the decarbonisation of the

Figure 4. Average global temperature in the years 1884 (left) and 2017 (right)
Source: NASA's Goddard Institute for Space Studies, 2018



**For a more accurate representation see the electronic version.*

Swedish economy, so that by the year 2014, Swedish emissions of CO_2 decreased by 23% and GDP increased by 58% (Pernigotti, 2015). In 2003, the European Union developed the Emission Trading Scheme (ETS) as a fixed charging system for energy sources, thus defending the European CO_2 market. There are examples that give us hope that the economy can decarbonize, and as a result, the global climate change can be diminished and kept under control, provided all economic and social players pursue the same goal of decarbonising the economy (Sertyesilisik, 2017). To achieve this, a true basis for global sustainability, productivity accounting and permanent environmental reporting are required by all economic agents.

ABC-TA/TOC Method and Green Reporting

Through the advantages and disadvantages offered by the implementation in various sectors of activity, the ABC method remains one of the most controversial, debated and analysed costing methods (Topor et al., 2017). Since its appearance, the ABC method has been extensive in terms of costing or cost management, either simple or in combination with other methods. One of the most recent and interesting approaches to hybridizing managerial accounting was recorded between ABC and TA/TOC.

According to specialists' studies, the two approaches have many differences, but also some similarities related to their relevance to a company's business and the main areas of conflict between them. In the line of adopting and implementing ABC-TA/TOC, there have also been some successes regarding: product quality improvement or joint decision making (Spoede et al., 1994) short-term for TOC and long-term ABC (Căpușneanu and Martinescu, 2010); increasing the information system (Demmy and Talbott, 1998) and increasing post-implementation performance (Mabin and Balderstone, 1998; Kaplan, 1989a, 1989b).

Strategic managerial accounting tools such as ABC/ABM can help economic entities in decision-making (Căpușneanu and Martinescu, 2010) and in managing environmental costs for sustainable business. The ABC/ABM system has been and is being used to improve the cost structure that combines how they are allocated with the process of managing activities (Cokins and Căpușneanu, 2011), this interpenetration allowing economic entities to better allocate resources and improve production processes to reduce costs.

Although detailed literature on the adaptation of the TA/TOC principles to the ABC method of environmental reporting has not been documented in the literature, we will try to look at the general framework underlying the synthesis of managerial accounting.

Under the ABC-TA/TOC approach, environmental costs are treated separately in indirect costs, which are included in the cost of production (ABC), by identifying consumed resources, activities carried out and related costs. According to the ABC method, a clearer evidence of the performance of each cost centre or production sector is obtained. From an economic point of view, environmental considerations by the economic entities in the cost of works, services or products allow them to better rationalize natural resources and energy, as well as meeting the requirements of respect for the environment and human health. For a better understanding of these issues, we will exemplify the inclusion of environmental cost by the ABC method and the creation of the general ABC-TA/TOC environmental reporting framework in Figure 5.

Within an economic entity in the energy industry, the following processes were identified: supply-production, production and administration. The situation regarding the identification of the main processes and activities of the economic entity in the energy industry is shown in Table 1.

The situation of the direct and indirect costs (by activity) is shown in Table 2 and Table 3. For example, it was chosen to determine the cost inductors related to the depollution activity (Table 4) and to calculate the costs related to the depollution activity (Table 5).

From the production process, the following cost drivers were identified (environmental and depollution activity): the number of analyses resulting from emission monitoring (sedimentary powders and particulate matter); the amount of waste resulting from the process wear (mc).

Calculation of the total cost of production: 6039809.02 + 6130944.70 = 12170753.72 RON

Figure 5. Environmental reporting framework according to ABC-TA/TOC
Source: Authors vision

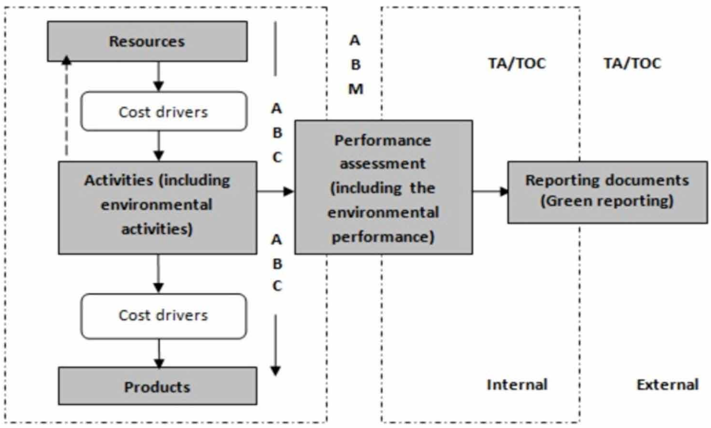


Table 1. Identification of main activities

Process	Main Activities
Supply - Sales	1. Supply (selection of suppliers, launch and receipt of orders, preparation/follow-up of the procurement plan, storage of materials)
	2. Coal discharging
Production	1. Production (preparation of mechanized extraction/extraction)
	2. Machine maintenance and repairs
	3. Transport
	4. Environment and depollution (Emissions Monitoring)
Administrative	1. Financial-accounting (evidence of accounting, calculation, cost settlement)
	2. Cost-pricing (cost verification, sales pricing)
	3. Calculation of environmental performance/performance indicators
	4. Quality Assurance (Quality Control)
	5. Organization and planning of work (establishing norms and norms)
	6. Human resources/salary (personal appraisal/wage record)
	7. General administration

The unit cost per Kwh is = 12170753.72/21462876 Kwh = 0.5670 RON/Kwh

In assessing the environmental performance of an economic entity, the carbon monoxide index (Ico) was calculated. Ico is the quantitative emission or pollutant concentration/standard emission or admissible limit value expressed in mg/m^3

Table 2. Situation of the direct costs

No.	Direct Costs	Amount (RON)
01.	Raw materials	927568.00
02.	Electricity and water	128425.87
03.	Damping - treatment plant	821000.00
04.	Inventory items	4150.25
05.	General transport	545800.00
06.	Packaging	260.20
07.	Transport of materials	42254.70
08.	Wage expense	2435500.00
09.	Wage accessories	1134850.00
	Total	**6039809.02**

Table 3. Situation of the indirect costs (by activities)

No.	Expenditure by Activities (indirect)	Amount (RON)
01.	Different materials	4125.00
02.	Fuel	3765.00
03.	Spare parts	20200.46
04.	Electricity for auxiliary and main sections	967678.85
05.	Auxiliary heating thermal energy	30140.00
06.	Amortization of auxiliary and main sections	52700.64
07.	Depreciation	480.00
08.	Repair of auxiliary machinery equipment	30500.90
09.	Services provided by third parties for auxiliary services	576223.10
10.	Antidote liquids related to the auxiliary section	190.40
11.	Salaries related to auxiliary and principal departments	1925500.00
12.	Accessories to salaries related to auxiliary and principal departments	801134.00
13.	General interest expenditure on administrative activities	1645355.45
14.	Depollution	72950.90
	Total	**6130944.70**

Table 4. Determination of cost drivers related to depollution activity and units of measurement

<table>
<tr><th>Process</th><th>Main Activities</th><th>Activities composition</th><th>Cost Driver</th><th>U.M.</th><th>Amount</th></tr>
<tr><td rowspan="2">Production</td><td rowspan="2">4. Environment and depollution</td><td>Emission monitoring</td><td>Number of analyses</td><td>Bulletin</td><td>4</td></tr>
<tr><td>Waste monitoring</td><td>Quantity of waste resulting from the technologic process wear</td><td>mc</td><td>10.200</td></tr>
</table>

Table 5. Calculation of depollution costs

<table>
<tr><th rowspan="2">Expenses for depollution (RON)</th><th colspan="2">Emissions/Waste Monitoring</th></tr>
<tr><th>Number of Analyses</th><th>Quantity of Waste</th></tr>
<tr><td>72,950.90 of which:
- analyses 5.890, 60
- wastes 67,060.30</td><td>1472.65 lei/bulletin</td><td>6.5745 lei/mc</td></tr>
</table>

(Rojanschi et al., 2008). According to the law no. 104/2011 on the ambient air quality in relation to the limits for the protection of human health, the limit value for the CO pollutant is 10 mg/m^3 for 8 hours (APMH, 2017).

Based on data from the economic entity, the carbon monoxide index (Ico) was calculated using the formula above for the 2015-2016-time frame at the annual quantitative emission level for the two industrial and urban areas, getting the values:

- **Industrial Base:** 0.016 mg/m^3 for 2015 and 0.032 mg/m^3 for 2016;
- **Urban Background:** 0.02 mg/m^3 for 2015 and 0.019 mg/m^3 for 2016.

According to productivity accounting (TA), the result (considering the environmental costs) is determined in Table 6.

SOLUTIONS AND RECOMMENDATIONS

Taking into account the topic approached in this chapter we propose the following solutions:

Table 6. Calculation of the result according to TA

Productivity Accounting	Amount (Ron)
1. Stocks (Initial)	29836,00
2. Direct materials	920400,00
3. Goods available for sale (1 + 2)	950236,00
4. Stocks (Final)	22668,00
5. Cost of sold goods (3-4)	927568,00
1. Income	14568900,45
2. Cost of sold goods	927568,00
3. Contribution productivity (1-2)	13641332,45
4. Direct salaries	3570350,00
5. Indirect manufacturing	5954529,37
6. Cost of sales, general administration, depreciation	1718306,35
7. Operating result (3-4-5-6)	2398146,73

- The adoption and implementation of production capability (TA) accounting alongside the Activity-Based Costing (ABC) method for determining the result of products or results for the company, but also for environmental reporting. Specialist studies have demonstrated a real possibility of adapting the principles of production accounting (TA) to the ABC principles.
- TA/TOC offers an alternative to traditional methods of calculating total costs and/or partially changing the perspective of managers' perceptions but also of employee staff, values and the outcome of a company. By eliminating constraints and identifying environmental costs, the resulting information is much more effective in making managerial decisions and in terms of environmental reporting.

Regarding the above, we would like to recommend the following:

- Researching the empirical literature on identifying those opportunities to adopt and implement TA/TOC principles alongside other management accounting methods that would allow and highlight environmental reporting.
- Expand the TA/TOC culture within companies that have adopted or wish to adopt these systems alongside the ABC-ABM system or other systems that have proven their viability and compatibility.

FUTURE RESEARCH DIRECTIONS

This chapter has reached its goals set by the authors. The presented and analysed aspects represent only a quantity synthesized and processed by the authors that contributed to the creation of the framework necessary to understand the methods approached. The case study presented is a starting point for demonstrating the viability between TA/TOC and the ABC method in terms of how the results are calculated and reported. As a result, we propose other future research directions related to the following aspects:

- Analysing the possibility of adapting the TA/TOC principles to other methods or systems of managerial accounting or environmental accounting;
- Analysing the impact of managerial decisions resulting from the adaptation of the TA/TOC principles to other management accounting or accounting methods or accounting;
- Analysing the possibility of creating new tools for monitoring and measuring environmental performance/performance based on the TA/TOC principles and the principles of other managerial accounting methods or systems.

CONCLUSION

In the present context, climate warming is a global problem of society, and sustainability is a necessity, all the states of the world have to combat and prevent air pollution by greenhouse gases. Climate changes, despite of high uncertainty affects the quality and safety of life on Earth, and their associated costs represent 5% of global GDP. If we add both losses induced by risks and effects, loss in global GDP reaches 20%. As a result, it is imperative to adapt to climate changes and to decarbonize the economy at regional and global level. For this we need the information and awareness of the population, socio-economic better planning and hence a more efficient environmental reporting, which will lead to improved environmental performance.

This chapter covers some segments of environmental reporting and Throughput Accounting using the Activity-Based Costing method. Through the authors' interpretations, these two approaches find some applicability in companies and constitute future starting points for expanding research by specialists. Knowledge has been enhanced by this contribution and we are opening a new line of theoretical and empirical research at microeconomic level, trying to clarify and develop other aspects of integration or implementation at the level of managerial accounting and environmental accounting.

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KEY TERMS AND DEFINITIONS

Activity-Based Costing (ABC): An accounting method that identifies the costs of the (indirect) activities and then allocates these costs to the products. Allocation of product costs to products is done through cost drivers.

Climate Change: Significant change in mean values of a meteorological element, especially air temperature and rainfall, for a period of at least 10 years with an impact on the economy, society, and the environment.

Decarbonization of the Economy: Economic and social activity to reduce and eliminate carbon emissions in the environment to improve its quality.

Green Reporting (GR): Report on the financial situation of a company based on information on costs and environmental indicators.

Greenhouse Gases: (GHGs): Gases that are naturally found in the atmosphere and they are responsible for the natural greenhouse effect or are introduced by human activity and they are responsible for the anthropogenic greenhouse effect

Throughput Accounting (TA): Integrated system based on principles used in management accounting for performance measurement through theory of constraints (TOC).

Theory of Constraints (TOC): Organizational change method centered on improving profit. Philosophy is that each organization must have at least one constraint. A constraint is any factor that limits the organization from making more efforts, usually profit.

Chapter 6
Throughput Accounting:
The Analysis of Managerial Implications on the Tourism Services Market

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ABSTRACT

This chapter presents some aspects of the managerial implications of throughput accounting on the tourism services market in Romania. The main objectives of this chapter are to present a comparative analysis of the managerial implications between the throughput accounting and the managerial accounting methods used by the entities from tourism industry. Based on the literature, the authors present the main theoretical and practical approaches to the throughput accounting, its principles, and correlations with various theories and methods. The throughput accounting contributes substantially to the managerial decision regarding the financial reporting of the entities providing tourism services. All the aspects presented by the authors are based on the international literature, university, and specialized studies within the providing tourism services entities. This chapter will contribute to widening the theoretical and practical debates on the implementation and benefits of throughput accounting within tourism services entities.

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INTRODUCTION

In 1990, Goldratt introduces for the first time throughput accounting concept in accordance with theory of constraints (TOC), developing new applications and techniques, in order to improve company profit (Goldratt, 1990; Watson et al., 2007).

In order to improve the enterprise profitability managers found a way that simplified accounting approach known as Throughput Accounting (TA). Relatively new in management accounting, throughput accounting was created by Eliyahu Moshe Goldratt (1984). TA detects elements that boundaries a company from attaining its goal, and then concentrates on measures to enhance company profitability and returns (Rahman, 1998).

Throughput accounting represents an alternative to traditional cost accounting, focuses on generating more throughput. Today cost accounting is all about long term yield management and efficiency, and considers companies in connection with the economic and social environment (Jasinski et al., *2015*). Throughput Accounting represents the solely management techniques that regards *constraints* as elements limiting the company's profitability (Hilmola & Weidong, 2016).

In our days everywhere you look we are confronted with threats and menaces, and from multiple sources. First, organizations must have in their foreground the suppliers and second the demand, both elements of uncertainty. The transparency represents a key element in achieving goals inside a company (Topor et al., 2017). Costs and revenues are difficult to estimate in the light of incertitude (Şimşit et al., 2014; Duff, 2017; Picard, 2016). For this, the profit is put under the magnifying glass of insecurity (Hilmola &Gupta, 2015). Căpușneanu et al. (2015) claims that senior director's pay and acquire computer and accounting systems able to indicate what short-term decisions to take with long-term positive effects.

The management strategy and throughput accounting represents domains of theory of constraints that needs software's systems technology, and software's checking outgrowth (similar to yield management informatics tools); (see: Tsou, 2013), and project management (Mabin & Balderstone, 2003).

'Throughput' is defined as sales revenue less materials and services purchased outside the company which relate to products sold. 'Operational expense' covers the cost of conversion including all employee time. The Goldratt Institute now defines 'throughput' as revenue less totally variable costs (*Noreen et al., 1995*). Throughput accounting relates what actually occurs in business areas like distribution, operations and marketing, and one of the most important aspects of Throughput Accounting is the relevance of the information it produces (Souren et al., 2007; Linhares, 2009; Okutmuş et al., 2015; Picard, 2016; Huber et al., 2018).

On the tourism services market it is crucial to know how to optimize the capacity of production in order to gain profit. Assaf and Tsionas (2018) in their paper untitled *The estimation and decomposition of tourism productivity* measured the performance of international tourism destinations and provided both short-term and long-term productivity measures.

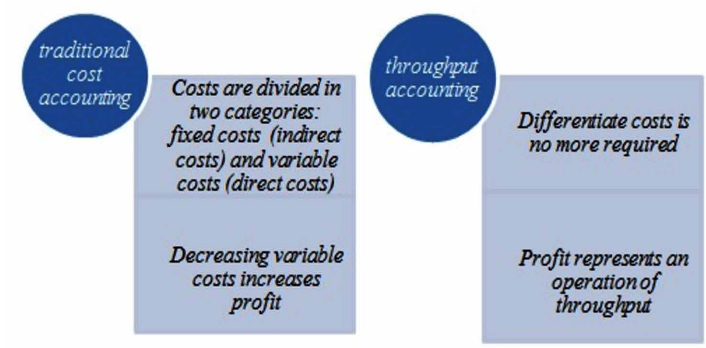
The financial-accounting system is made up of elements and processes through which a specialized function of business administration in tourism activity is realized. An extremely important aspect is the management of financial funds and the adoption of decisions on the financing of tourism activities, investment and management of the working capital of tourism entities.

BACKGROUND

Tourism Services Market and Throughput Accounting

In the same time with Goldratt theory about throughput accounting, in tourism sector Barejde (1982) argues that the balance of payments in tourism has particularities and the government needs to improve it. A wider concept is needed in which the tourism receipts and payments are taken into consideration, as its must be recorded in the balance of payments alongside other international transactions. The tourism accounting system needs to be improved by the governors. In 2017, Ohlan, in the paper *The relationship between tourism, financial development and economic growth in India*, investigates relationship between tourism and economic growth in India by considering the relative importance of financial development over the period of 1960–2014.

Figure 1. Analogy conventional cost accounting and throughput accounting
Source: Adaptation after Dugdale and Jones (1998).



Theory of Constraints is criticized in tourism because it ignores fixed costs and puts a lot of emphasis on variable costs. Computer systems and tourism management systems, such as the Opera, Fidelio, are essential to keep track of sales and earnings. Also, the yield management system is essential to the profit of travel companies. The yield management system sets the highest rate that can be applied to tourist services and which tourists accept, want and can pay for. In this way the throughput is maximized (Pretorius, 2004).

Concerns in the field of prices and profitability of tourism products sold by tour operators were studied in several recent research papers. Thereby, Picazo and Moreno-Gil (2018) in their research paper *Tour operators' marketing strategies and their impact on prices of sun and beach package holidays* stated that travel agents can influence tourists' flows. They have this power. The influence of tourists' flows generates higher revenues in certain tourist destinations. The multiplier effect of tourism is influenced by tour operators. The authors' research shows that tourists are increasingly looking for full-board versus all-inclusive services. Accounting is taking into consideration these two types of services. The extra services like gym, spa, and wellness have a major impact on tourists' choices. Also these different services are recorded separately in the accounting. *Ancillary services* are essential to tourists, and here we talk about Wi-Fi services, baby-sitter, and animation.

Tourism services change and with them the accounting systems. Alegre and Sard (2017) valued the product and price strategies of German and the UK tour operators that offered vacation packages in Mallorca. The results indicated that tour operators were making a differentiated product and price strategy, which was a change according to the evolution of demand. An accounting system records all price changes (low prices, average prices, high prices for the holiday package).

Yevstafyev (2015) has researched the modalities of cooperation between tour operators in Russia with tour operators in Europe. Analyses have shown that tour operators with relationships, education, and good reputation have been successful in creating a network of travel agencies spread across Europe. Tour operators who failed to create a reputation and a brand could not even create support relationships in the sale of tourist packages. Also, tour operators without accounting system were unable to create long-term relationships with foreign operators.

Li et al. (2018) firmly affirmed that tourism can contribute to reducing poverty using channels of prices, and the factors of production like labour, capital, technology, environment, expenditures and revenues are the key determinants of tourism efficiency and productivity.

Park et al. (2014) have designed an important model to boost tour operators' performance in the rural area in Korea. The authors said there were at least six factors directly affecting the company's performance, namely: a simple product, an airy accounting system, human resources training, an efficient information system, cost management, and a long-term strategic plan.

Business management takes into account performance and cost reduction to generate profit. The organization, planning, controlling, action, assessment and the sanction measures underlie performance management. Butnaru (2015) confirmed in her research paper that creativity, innovation, competitiveness, competence and education are determinant factors in the development of managerial performances in tourism. Managers' continuous education and expertise are key elements also in tourism productivity sector leading to original tourism packages base on new concepts and innovation (Dogru & Bulut, 2018; Marin-Pantelescu, 2009; Power et al., 2017).

Tourism Services Market was estimated at 7.6 trillion U.S. dollars in 2016. The direct economic impact of the tourism services market, including travel agencies, accommodation, transportation, entertainment and attractions, was approximately 2.3 trillion U.S. dollars that year.

From the total actors involved in tourism market we focus on the travel agencies, those important link between the tourism providers and the customers (in this case the tourists).

A travel agency is represented as an important distributor of touristic products, often holding the monopoly of sales on the touristic market, due to the fact that it holds two large advantages over other forms of distribution.

First of all, a travel agency offers consumer protection for touristic services, which is greatly appreciated by clients. Second of all, the other benefit is reflected onto the financial guarantee granted to tourists and to suppliers of touristic services for which the agency concludes the contracts with.

The variety of the tourists' services entails consideration from the travel agencies. In the distribution channel a travel agent must cooperate in good conditions and transparency both with the providers and the tourists (Pantelescu & Ioncica, 2012). Tourist counselling is the most important function of travel agents. They have to compare one holiday destination in favour of the other, taking into account the tourists' preferences and budget.

Travel Agencies could be arranged into groups based on different criteria. There are three main groups: Tour operators, detailed travel agencies and mixed agencies. However, worldwide touristic activities add more to the categories of tourism agencies, classified below:

- Based on technical name, activity and size: tour operators/wholesalers, detailed, mixed;
- Based on the name of the channel of distribution: implant, franchise, virtual;
- Based on the touristic traffic: Transmitters (outgoing), receivers (incoming);

- Based on the offered products: specialized tourism agencies, agencies with a complete offer, incentive agencies, commercial agencies, agencies for cruising, „implant" type agencies, circuit (travel) organized agencies, agencies organized for post offices (Marin-Pantelescu, 2009).

A wholesaler or tour operator is defined as the enterprise which provides a diverse set of services, in large quantities (bulk) and resells place by place through the intermediary of travel agencies. In practice, the term „tour-operator" and „wholesaler" are distinctive based on the company's size, and can be referred to as synonym from the perspective of the enterprise's activities if they share the following attributes: the main function would be to design touristic products; the contracting of touristic services in large volumes and the negotiation of tariffs with suppliers in order to obtain a reduced selling price for the tourists.

An important source of information for managers of tourism activities is cost. Based on costs, traditional accounting focused on the efficiency of the budget planning of the travel company; operation of a strong financial control system with primary objective - cost reduction, pricing for tourism products and services, calculation of the profitability rates of the tourist activity carried out (financial profitability, economic profitability, commercial profitability, cost-effectiveness).

In order to understand the costs, it is crucial to distinguish between the type of costs, how the costs are fixed and variable, direct and indirect.

Costs vary differently depending on quantity: if it increases or decreases, variable costs change in the same direction, while fixed costs remain at the same level (short-term and for changes in production within certain limits).

In practice it is possible that the change in variable costs is primarily determined by the change in production volume, and secondly by negotiating a lower purchase price for a direct raw material. Fixed costs can also be changed, for example in the case of a spa or fitness room due to the large number of customers, it is necessary to rent a larger space, in addition to the hall that the company owns.

This distinction between fixed costs and variable costs is extremely important for the company and it is based on Throughput Accounting (TA). If the company has high fixed costs, then it is required to make larger quantities of products or a larger volume of services to ensure a low cost.

Throughput Accounting (TA) and Managerial Decisions within Throughput Accounting an important element for the profitability of the tourism company is the balance that remains after the decrease in variable costs of the sales amount. This value - Throughput - must be large enough to cover fixed costs and generate profit.

The operating lever indicates how sales profits are affected by profits. The calculation is done by reporting throughput to net profit.

The profitability threshold is the turnover that equals expenses. For this we separate the fixed costs (independent of the travel agency's activity) from the variable costs (depending on the activity of the travel agency).

Throughput = Net turnover - variable costs (1)

Throughput = Throughput rate*100 (2)

Profit threshold = Fixed Expense/Throughput Rate (3)

Regarding the accounting procedures for Travel Agencies, the most important are the income affidavit, the general ledger and the cash flow (Sikka & Hampton, 2005; Nunkoo, 2017).

The income affidavit of the tour operator records total revenue and total expenditure for the purpose of calculating gross profit. After the tax drop we remain the net profit. The state takes from the gross profit a sum of money through taxation. At the beginning of activity, for the tour operator is more important *the cash flow*, in the long run the more important is *the profit*.

General ledger represents an accounting tool confirming the travel agency position, reveals agency's assets, and needs daily actualization.

Revenue recognizing acknowledges when an activity has been able to earn revenue and has to report the earnings on its accounting program and to pay taxes to the state.

Cash Flow Management offers a possibility to take care of the agency's cash flow. Inside a travel entity there are compound and complex day-to-day transactions, and it is easy fall behind with the incoming payments. Accounting software in the travel agency shows evidence of net cash flow from sales and expenses.

Travel Agencies' Accounting Particularities in Romania

The tour operator represents any other person, who in their own representation as a person or as an agent, distributes, offers information or employs themselves as a supplier for people that travel, individually, or in a group, through travel services. These may include: accommodation at hotels, guest houses, vacation homes, or other spaces provided for the sole purpose of accommodating, air land or sea transports, planned tours.

When a travel agency takes action on its own accordance, in order to benefit the traveller whilst using supplies of goods and services provided through the intermediation of other persons, all the functions performed by the travel agency that is connected to the journey may be considered a unique service provided by the agency in order to satisfy the traveller.

When a single service of a travel agency is considered to be provided through an intermediary, it is exempt from the tax, and this is the case when supplies of goods and services are performed outside the Community for the customer with the intention of benefiting them.

When services are executed inside or outside the community, with the intention of benefiting the customer directly, the single part of the service taken into account in the process of exempting from tax Community is the one that takes place off-site.

Tax services are taken into account when performing services with the direct benefit of the customer within the Community.

The travel agency is not entitled to deduct or refund the tax charged by the taxable person for the supplies of goods and services that intend on benefitting the traveller directly, and utilized by the travel agency to provide the single service.

The VAT regime in travel agencies is a special regime applied, according to art. 152, par. (1) of the Romanian Tax Code. The travel agency can opt for the normal tax regime for the provided operations, with the below exceptions, for which the special tax may be mandatory:

- When the traveller is an individual;
- If the travel services may contain components for which the place of operation is *located outside Romania.*

The special regime does not apply to services provided by the travel agency, exclusively by its own means.

As of January 1, 2010, tourism agencies will apply the special regime provided for in art. 1521 of the Fiscal Code and in the case when the unique service includes a single service provision, except for the exceptions provided in paragraph (2) (where a travel agency may take action on its own on behalf of the direct advantage of the traveller and utilizes the supplies of goods and services provided by other persons) and except for the situation in which it opts for the normal tax regime within the limits of art. 1521, par. (7) of the Fiscal Code. The judgment of the European Court of Justice in Case C-163/91 Van Ginkel was pronounced in this respect. However, for the transport of passengers, the travel agency may apply the normal tax regime, except when the transport is sold together with other tourist services.

The single service tax base is the profit margin excluding the tax, which may be evaluated as the difference between the travel agency's costs, including the tax, related to supplies of goods and services for the sole purpose of benefitting the traveller directly, and the total amount paid by the traveller, free of charge, if these deliveries and services are performed by other taxable persons.

For the purposes of Art. 1521, par. (4) of the Fiscal Code, the above terms are defined as follows:

1. The total price to be paid by the tourist is what constitutes the consideration obtained or to be obtained by the travel agency from the traveller or from a third party for the sole service, plus the subsidies directly associate to this service, the taxes, additional expenses such as commissions and insurance expenses but excluding the amounts provided in art. 137, par. (3) of the Fiscal Code. If the items used to determine the amount to be paid by the traveller are denominated in foreign currency, the exchange rate to be applied is the last exchange rate conveyed by the National Bank of Romania or the exchange rate utilized by the settlement bank from the date of execution the invoice for the sale of services, including partial bills or advance payments.
2. The costs of the travel agency for deliveries of goods and services for the direct benefit of the traveller are the price, including VAT, invoiced by the providers of specific operations such as transport, hotel, other expenses such as those with the means of transport used, visa fees, daily allowances and driver accommodation, road taxes, parking fees, fuel, except for the general travel agency expenses that are included in the cost of the single service. If the elements used to determine the costs are denominated in foreign currency, the exchange rate shall be determined according to art. 1391 of the Fiscal Code.

When the travel agency puts into practice both operations liable to the charging regime and operations liable to the special regime, it must split its accounting records for each type of operation separately (Fiscal Code 2018 ART. 311 - Special Regime for Travel Agencies).

Records of Transport Costs (Land, Air or Water)

1. If the carriage is performed on external lines, the customer's invoice enters VAT

Exempted from deduction rights (see Boxes 1, 2 and 3)

2. If the carriage is performed on domestic lines, it is included in the VAT section on the customer's invoice

VAT included in Boxes 4, 5 and 6.

Mention: The expenditure on transport may be included in the airport tax on the internal lines that are exempt from the VAT.

Box 1. Records of clients' invoices

4111	=	**704**
Clients		Income from products and services

Box 2. Recording its receipt

5121/5124	=	**4111**
Cash at bank in lei/currency		Clients

Box 3.

5311/5314	=	**4111**
Cash in hand in lei/currency		Clients

Box 4. Records of the client's invoice

4111	=	%
Clients		
		704
		Income from products and services
		4427
		Collected VAT

Box 5. Recording its receipt

5121/5124	=	**4111**
Cash at bank in lei/currency		Clients

Box 6.

5311/5314	**=**	**4111**
Cash in hand in lei/currency		Clients

Recording Expenditure With Transport Services Based on the Type of Routes Conveyed

1. If these are on external routes (BNR exchange rate from the invoice date) (see Box 7)
2. If these are internal routes, it is recorded as shown in Box 8

Recording Invoices From the Suppliers of Touristic Service Packages

See Box 9.

Issuing and Registering the Invoice for the Customer

See Box 10.

Box 7.

628	**=**	**401**
service charges to third parties		Suppliers

Box 8.

%	**=**	**401**
		Suppliers
628		
service charges to third parties		
4426		
VAT deductible		

Box 9.

462	**=**	**401**
Diverse creditors		Suppliers

Box 10.

4111	**=**	%
Clients		704
		Income from products and services
		4427
		VAT collected
		462
		Diverse creditors

With the Explanatory Note: 704 *Commission value;* 4427 *VAT amount calculated on commission (value* 704*);* 462 *income value belonging to the tourist package supplier*.

A travel agency has particularities in what concerns the determinacy of the basis for corporate income tax (or income tax on microenterprises) and VAT treatment.

Income Tax of Microenterprises in Romania Travel Agency System

In order to determine which type of tax applies to an agency, its turnover should be determined.

In practice, there are two types of approaches. The first approach indicates that turnover is formed from total revenue or total sales (as with most activities). The second approach mentions that only the commission of a sold package forms the travel agency turnover.

Choosing the right method is interpretable and may be subjective.

In our opinion, *the turnover for travel agencies should be determined by type of agency*.

Therefore:

If the agent is a retailer (which sells standard tourism packages prepared by other agencies at fixed prices set by them and for which they receive commission), then the turnover (and implicitly the basis for applying the 3%) whilst emerged by the commission only - according to the following paragraph of OMFP 3055.

(2) Amounts collected by an entity on behalf of third parties, including in the case of agency contracts, commissions or commercial mandates concluded according to the law, are not income from the current activity, even if from the point of view of the value added tax the persons acting in their own name, are considered as resellers. In this situation, the current activity revenue is represented by the anticipated commissions.

If it is a tour operator (which creates own touristic packages consisting of accommodation, transport, various activities, etc.) and who assumes the risks associated with these packages, then the turnover is made up of the total revenue or sales. Based on the above presentation, in the first case an agency (especially one at the beginning of the activity) will pay for the income of microenterprises for a longer period, while in the second case it will quickly reach the profit tax.

VAT Treatment in Travel Agencies in Romania

How the turnover is determinate will also imply when a travel agency need to become a VAT player. No matter the situation, the moment when the agency becomes a VAT tax payer, there are two options (for each individual touristic package).

Apply the normal VAT regime (as in the case of any general activity) - where it deducts or collects VAT specific to each activity (e.g. 9% VAT for accommodation). In this case, the travel agency will need to show separately each type of billed service on the invoice issued to apply the appropriate VAT rates.

Apply the special regime for tourism agencies, according to art. 152 ^1 of the Fiscal Code. According to it, the following special treatments apply to a tourist package (the so-called single service): on the one hand, VAT applies only to the commercial contribution determined for each single service, and on the other hand there is no right to deduct the VAT related to that travel package

(4) The tax base for one service provided in par. (2) consists of the profit margin, exclusive of the tax which is regulated as the outstanding amount between the total amount paid by the customer, free of charge, and the costs of the travel agency, including the tax, relation to the supply of goods and services with the intention of providing the traveller with an advantage, if these delivers and provisions are made by other taxable persons.

Moreover, in this second situation, the travel agency will not separately disclose the amount of VAT on the invoice - which will motivate the requirement for separate accounting records in its presentation:

(9) Travel agencies should not be entitled to enter the tax individually in invoices or other legal documents that are likely to be transmitted to the customer for the individual services to which the special scheme applies.

It is important to note that there are 2 situations where the tour operator is obliged to apply the special VAT regime. Therefore:

(7) The travel agency could also vouch for the application of normal tax regime for the operations offered for in paragraph (2) with the below exceptions, for which the special taxation is obligatory:

a) when the traveller (*) is an individual (natural) person;

b) when travel services may include elements for which the location of the operation is considered to be outside the initial country (Romania).

(*) Referring to the traveller means referring to the client of the agency.

Regarding the tour operators tendencies in creating holiday packages, the principal format, preferred by those organizing international tours, remains as the all-inclusive type, precisely because there is demand for this kind of touristic arrangement.

In the light of the offers for multiple travel agencies in Romania, such as Christian Tour, Happy Tour, Vola.ro, Paralela 45, Eximtur, some aspects of influence have been determined upon tour operators in the process of designing touristic products. With regard to the chosen destinations, it is important to mention the fact that a growing interest in tourism has risen among customers with medium to high incomes for exotic destinations, those willing to support the costs for luxurious destinations and high-quality services. On the other hand, consumers with low incomes have a large range of products to choose from, this includes Senior Voyage (vacation prices for those qualifying as elderly), The Seaside for All (Cheap touristic products that are affordable for everyone in order to enjoy a vacation at the seaside) etc. Through these kinds of touristic packages, tour operators offer the possibility of allowing all consumers to purchase a touristic product and to relax at a well-deserved vacation, reducing monotony and day-to-day stresses.

Thus, the efforts of tour operators in reaching the optimum satisfaction level of their clients has reached its peak, those offering a diversified yet rich range of touristic products and services to satisfy even the most humble clients (from a financial point of view) or pretentious (from a qualitative point of view); however all these efforts are reflected onto the turnover obtained and even in the realizations of the firm, meaning in other words, the success of the organization.

The Case Study: Throughput Accounting Used by Tour Operator "Z" in Romania Demonstrates the Superiority Over the Traditional Cost Accounting

The tour operator *"Z"* referred to, represent one of the most important players on the touristic market in Romania, offering high quality services within the travel and tourism segment, for business and leisure, groups and corporations. Operating in the market for the past 19 years, their current position on the market gradually strengthened due to its high professionalism, which allowed them today to become one of the most respected travel agencies in Romania. During those 19 years of operating, the company accumulated a great length of experience and know-how, which drove the company to a strong position on the touristic market in Romania, covering, today, all the tourism segments organized. In addition, the agency cherishes the trust of over 800 partner agencies and values the satisfaction of over 50,000 tourists annually. According to one of the agency's employees, the tour operator success formula consists in offering quality services at the best possible price, thus offering customers the best quality-price ratio.

The case study refers to the financial and accounting situation of this tour operator, offering a comparative analysis between cost accounting and throughput accounting. According to the confidentiality agreement we will name the tour operator "Z".

Cost Accounting Method Influence on "Z" Tour Operator's Profit

First, we selected from the profit and loss account of the tour operator "Z" the main indicators of financial analysis and organized them in Table 1. We gather information regarding the "Z" tour operator financial status from The Romania Ministry of Public Finance, using tax identification number (9617078).

Second we calculate according to the traditional cost accounting the profitability rates and make the necessary conclusions regarding the "Z" tour operator labour productivity, financial productivity, commercial productivity, cost productivity and the net profit.

Table 1. Financial-accounting analysis of "Z" tour operator for 5 years of economic activity, 2012-2016

	2012	2013	2014	2015	2016	Annual average rate (%)
Fixed assets	1807094	625999	3795566	3667305	4896777	28.30
Current assets	17935815	36396627	43783589	48756077	66516357	38.77
Total Assets	19742909	37022626	47579155	52423382	71413134	37.91
Total Capital	3255112	4954220	2901431	3676035	3723987	3.42
Net turnover	155829930	195317686	213567707	246771328	29584796	-33.99
Total income	160022399	202202852	223967059	253318253	37340183	-30.50
Total expenses	156285181	197138570	221208516	248983623	32975375	-32.23
Gross Profit	3737218	5064282	2758543	4334630	4364808	3.96
Net Profit	3134535	4362371	2309582	3535558	3583510	3.40
Number of employees	94	100	112	167	190	19.24
Labour productivity	1657765	1953177	1906855	1477673	155709	-44.64
Economic profitability	15.88%	11.78%	4.85%	6.74%	5.02%	-25.02
Financial profitability	96.30%	88.05%	79.60%	96.18%	96.23%	-0.02
Commercial profitability	2.01%	2.23%	1.08%	1.43%	12.11%	56.67
Cost-effectiveness	2.01%	2.21%	1.04%	1.42%	10.87%	52.50

Source: Authors' calculations based on the tour operator's financial and accounting information using the economic efficiency formulas and the formula of the annual average rate. Romania Ministry of Public Finance (2018). http://www.mfinante.gov.ro/agenticod.html?pagina=domenii

The annual average rate = (The annual average index -1)*100 (4)

The annual average index $\bar{I} = \sqrt[n-1]{\frac{y_n}{y_1}}$ where:

n = number of years of the series;
y_1 = the indicator in the first year of the series;
y_n = last-run indicator of the series.

Formula we used:

$$r_c = \frac{P_T}{CA} \cdot 100 \tag{5}$$

$$r_f = \frac{P_T}{K} \cdot 100 \tag{6}$$

$$r_e = \frac{P_T}{A_t} \cdot 100 \tag{7}$$

$$r_{Ch} = \frac{P_T}{C} \cdot 100 \tag{8}$$

$$W_L = \frac{CA}{L}$$

where:

r = profit rate,
PT = total net profit (absolute value),
CA = net turnover,
At = total assets,
K = used capital,
C= costs.

Relative indicators refer to the rate of return that can be of several types:

commercial (rc),
economic (re) and
financial (rf).

Labor productivity(WL) = Net CA/Number of employees (9)

Analysis of Results for 2012-2016 Using Cost Accounting Method

The total assets consist of fixed assets and circulating assets, they have an average annual growth of 28.30%, we can conclude that the resources invested in the business have increased significantly, "Z" tour operator being in the period of economic expansion.

The "Z" tour operator's total capital has grown moderately by 3.24%, so financial resources from owners (shareholders or associates) are on the rise.

The net turnover (revenue from the sale of tourism products) increased significantly in the period 2012-2015 (thus, in 2015 the net turnover of the tour operator was 246,771,328 lei). In 2016 the net turnover decreases to 29,584,796 lei. The net turnover is down 33.99%, which means that the number of tourist products sold by the tour operator has decreased, the volume and structure of the demand has changed, the "Z" tour operator's offer capacity has changed. *Why?* Because in 2016 some important changes affected the tour operators market place in Romania. The bankruptcy of travel agencies Genius Travel, Mareea, Omnia Tourism and Perfect Tour damaged the tour operator from our study. The travel agencies insolvency affected the revenues of "Z" tour operator proposed in this case study. Those travel agencies were partner agencies and re-sold the "Z" tour operator's packages. For example, the Mareea tourism agency had debts of 32 million lei to 225 creditors and Omnia Tourism, accumulated debts of 7.4 million Euros.

"Z" tour operator's profit is on a plus with an average annual growth rate for gross profit of 3.96% and an average annual growth rate for net profit of 3.40%. The company has profit, so it's a profitable company. But the gross profit (total income minus total expenses) is 4.4 million lei.

Throughput Accounting Method Augments "Z" Tour Operator's Profit

The "Z" tour operator decides to implement the TA/TOC to increase its performance. After the implementation the team analyzes the proposed objective, it establishes the implementation plan and the deployment stages.

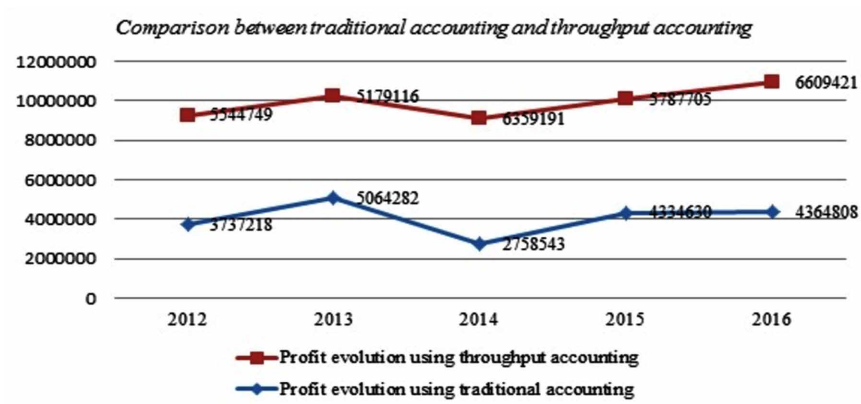
Based on the above analysis, it can be found that throughput accounting will provide an appropriate solution in different situations compared to the classical cost accounting method (Table 2).

Table 2. Throughput accounting based on "Z" tour operator's sales of tourists packages

		2012	2013	2014	2015	2016
1	Net turnover	155829930	195317686	213567707	246771328	29584796
2	Total operating expenses	150285181	190138570	200208516	240983623	22975375
3	of which, variable costs	30057036.2	38027714	40041703.2	48196724.6	4595075
4	and fixed expenses	120228144.8	152110856	160166812.8	192786898	18380300
5	***Throughput accounting (1-3)***	125772893.8	157289972	173526003.8	198574603	24989721
6	***Profit (5-4)***	***5544749***	***5179116***	***13359191***	***5787705***	***6609421***
7	***Commercial profitability (6/1)***	3.56%	2.65%	6.26%	2.35%	22.34%

Source: Romania Ministry of Public Finance (2018). Economic agents and public institutions - identification data, tax information, balance sheets, http://www.mfinante.gov.ro/agenticod.html?pagina=domenii

Figure 2. Comparison between calculating profit using traditional accounting formulas and calculating profit using throughput accounting formulas
Source: Authors' calculations based on "Z" tour operator's financial and accounting information. Romania Ministry of Public Finance (2018). http://www.mfinante.gov.ro/agenticod.html?pagina=domenii



SOLUTIONS AND RECOMMENDATIONS

Sensitive change of results through the application of TOC principles shows the direct impact over the profit value. According to this method the profit has raised from 5,544,749 lei in 2012 to 6,609,421 lei in 2016. As well, the commercial profitability increased significantly from 3.56% in 2012 to over 22% in 2016. The constraining processes, causes TOC to ask for more information from the tour operator financial structure, but by now it give us enough details to understand the Throughput accounting process.

The superiority of throughput accounting over traditional product costing was demonstrated in our case study. In this particular case, the management of “Z” travel agency must make the decision whether to accept the throughput accounting approach or to use the traditional management accounting approach. The different approaches lead to the modification in the profit value and in the commercial profitability rate.

FUTURE RESEARCH DIRECTIONS

First of all, it is important to note the fact that the leisure type of tourism is the strongest segment of “Z” company, covering a crucial part of the offers made by the agency, bringing substantial income. However, “Z” tour operator designs touristic products and distributes them through the intermediary of their own agencies, partner agencies, other retails as well as travel agencies, and the intermediary of the internet (so the variable costs are very high and the fixed costs can be reduced).

Fixed costs and variable costs together play a key role in determining “Z” company’s profitability. “Z” tour operator management should be aware of its variable costs and fixed costs in order to determine the travel agency’s profitability in the case where it may sell more or less tourist packages. Investors and analysts may take into account companies with a high variable costs to fixed costs ration for a low-risk investment, as the profitability margin may be less unpredictable and profitability or risk are easier to consider based on the foundation of production.

We can discuss our findings from different perspectives because in the tourism value chain we can find principals (transport, accommodation), tour operators, travel agents and consumers. A tour operator creates a tourism package putting together a unit of accommodation with an airline seat and other services, distributing *information* about the created package to consumers. Using throughput accounting method the tour operator needs to know the variable costs per tourism package and to determine also the costs of providing consumers information, personal service and ancillary products (insurance). Providing feedback on the tourism market place to principals is another discussion important to mention here.

RECOMMENDATIONS FOR FUTURE STUDIES

Our case study was concentrated on the tour operators’ activities and their financial and accounting data and figures, but we can also study throughput accounting in hotels industry, airlines sector, entertainment business, and so on.

The necessity for further studies regarding throughput accounting in tourism and travel industry is vital in the actual context of globalization and industrialization facing the new millennium.

All the actors involved in tourism and travel industry (resorts, attraction suppliers, event organizers, transport operators, accommodation, food and drink facilities, tour operators, and travel agents) are open to new accounting studies that will increase their revenue.

CONCLUSION

In conclusion, there is a high degree of professionalism in "Z" travel agency, which is reflected onto the rich and diversified offers made to the customers, which determines the success of the agency on the Romanian market. Innovation and continuous improvement, customer care and the quality of services make the holiday of every tourist an unforgettable experience, and this would be demonstrated in the ongoing development of the agency on the Romanian market.

The throughput accounting contributes substantially to the managerial decision regarding the financial reporting of the entities providing tourism services. Throughput Accounting (TA) and Managerial Decisions within Throughput Accounting (the balance that remains after the decrease in variable costs of the sales amount) represent an important element for the profitability of the tourism company. This value - Throughput - must be large enough to cover fixed costs and generate profit.

Our case study has examined the case of "Z" tour operator in Romania from the financial and accounting point of view. Calculating profit using the cost accounting procedure and computing profit using throughput accounting has generated different results. In the first case the profit was 4.4 million lei and in the second case 6.6 million lei.

Fixed costs and variable costs together play a key role in determining "Z" company's profitability. "Z" tour operator management should be aware of its variable and fixed costs in order to determine the travel agency's profitability based on the sale of more or less tourist packages. Investors and analysts usually take into account the companies ration of variable to fixed costs in order to have a low-risk investment, as the profitability margin is less unpredictable and profitability or risk are easier to consider based on the foundation of production.

The superiority of throughput accounting over traditional product costing was demonstrated in our case study. In this particular case, the management of "Z" travel agency must make the decision whether to accept the throughput accounting approach or to use the traditional management accounting approach. The different approaches lead to the modification in the profit value and in the commercial profitability rate.

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KEY TERMS AND DEFINITIONS

Commercial Rate: Net profit divided by net turnover.

Fixed Cost: An expense which does not depend on the rise or diminishing of the number of services provided.

Labor Productivity: It expresses the quantity of real gross domestic product produced in one working hour.

Throughput Accounting (TA): Sales revenue minus goods and services bought outside the company relating to products that are sold.

Tour Operator: They buy distinct elements of transport, accommodation, as well as other services. Afterwards, they combine them into a package. The touristic package can be sold directly or indirectly.

Tourism Services Market: A place that connects the tourism provides (carriers, accommodation) with the tourists through the medium of tour operators.

Travel Agents: In exchange for a fee, they provide customers with touristic packages.

Variable Cost: An expense depending on production output.

Chapter 7
Valences of the Corporate Governance in the Process of Accounting Reporting

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ABSTRACT

In the context of the issues that the global economy is facing, one of the main concerns of the regulative authorities, of the professional organizations, and of entities was and still is identifying the risk factors that affect the systems of corporative governance and the systems and processes through which the supply of reliable information in the decision-making process is insured. Another concern is identifying reliable solutions for insuring the implementation of a proactive and prospective risk management that makes a mark on the utility of the information presented and communicated to the targeted users, especially through accounting reporting. Hence, through the necessity of insuring the transparency and the utility of accounting information, in this chapter, the role of corporate governance, in improving the process of accounting reporting and as a consequence of the value of accounting information, will be synthetically presented.

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INTRODUCTION

Seen from different perspectives, the system of corporate governance brings in the forefront, approaches that differ in report to the targeted interests by the different involved parties. Hence, these are focused on the interests of the capital owners, of the investors, of the different interested parties, of the third parties or search for the ways in which the targeted entities could become more performing in time.

In the given context, the objectives of corporate governance target the insurance of an efficient business administering, grounded on integrity and transparency, the efficient allocation of the capital resources, maximizing the value of the entity for the capital owners and improving the performance of the entity and of the responsibility towards all the interested parties. Through the targeted objectives, besides the economic component, the implemented system has also a social responsibility in which the satisfaction of the public interest is primordial. In the same line of thinking, the theories of corporate governance are included, that have at the basis a series of principles that became renowned with time.

Starting from the theories of corporate governance, especially from the ones of agency and of the interested parties, in the relevant published literature, an accounting approach was drafted in regard to the relationship that exists between the capital owners and the managers as well as with other interested parties. Therefore, in the relationships drafted among the different interested parties, the accounting professional is interposed. This professional has the role of mediating the relationship of trust or mistrust between the parties.

In the given framework, it is necessary to approach corporate governance valences in the area of the accounting reporting process and to consider its impact through the drafted reports on the system of leadership and control. In this way the mechanisms through which the analyzed systems and processes interfere, condition and influence each other could be identified, as well as the ways through which these, and also the relationships between the different interested parties could be improved.

BACKGROUND

In the relevant published literature as well as in the norms specific to the functioning, leadership and the control of an entity as well as in the accounting ones, corporate governance has several connotations.

Among the most renowned and promoted valances of corporate governance is the one of "a system of leading and controlling" (Cadbury Report, 1992), through which the adequate controlling of the carried activities by an entity in the frame of its business line is targeted. In essence, the system is grounded on an of rules, principles, models, methods, practices and traditions that target the strategic leadership of the entities in which it is implemented, targeting in this way, the protection of the interests of all the involved parties.

In this sense, the most relevant are the works of: Cadbury (1992), Turnbull (1997), Black (2001), Klapper and Love (2004), Black et al (2006, 2007), Love and Rachinsky (2007), Ghiţă (2008, 2009), Talaulicar (2010), Feleagă (2008, 2011), Crowthe (2011), Malin (2013), Dănescu et al (2008, 2014, 2015), Bunea and Ţurlea (2016), Dumitraşcu, Feleagă and Feleagă (2016) etc.

In their evolution, the theories specific to the corporate governance have drafted a series of elements, aspects and relationships of the system of leading and controlling that have associated different concepts and explanations. While some surprise the ways through which the investors receive insurances that they will receive the planed benefits of their investment (Shleifer & Vishny, 1997), others focus on the ensemble of rules that govern the entities for protecting the interests of the involved parties (OECD, 1999). Starting from the idea that the two perspectives cannot be independently instrumented, in other approaches, the system of governance targets the ensemble of rules, principles, methods and practices implemented for the achievement of the entity's targeted objectives, as an essential condition for protecting the interests of all the involved parties (Dănescu, Prozan & Prozan, 2015).

Among the most famous and promoted theories in the published literature are the ones of agency, of the transaction costs, of the administrator, of the interested parts and of resource dependency. Actually, these theories highlight the diverse dimensions of the leadership system, as well as the relations and the interferences that exist among these, emphasizing different behavioral aspects, through the targeted interests. In this line of reasoning, relevant are the relationships drafted in the frame of the agency theories, of the administrator or of the interested parties that show both the existence of some conflicts which are generated by the divergent interests as well as the way in which these can be approached in order to be prevented and/or treated.

According to the agency theory, the capital owners delegate their decision making power to the leadership, which takes the responsibility, through the process of accounting reporting to present accounting reports, respectively annual accounts, especially "a balance sheet and a profit and loss account" (Colasse, 2011).

The objective of the "loyal image" carries the mark of the ways in which the rules and the norms comprised in the corporate governance codes and in the legislation specific to the analyzed field are transposed in the governance practices and in the ones of the accounting information modeling, in the frame of each entity. In the sense of the shown aspects, relevant are the drafted codes and the way in which these are applied in the implemented systems.

In principle, the codes of corporate governance are drafted on the basis of the best practices and contain information that refer to: the structures of corporate governance; the administrative structures; the council of administration for which the following elements are considered: the role and obligations; structure; naming the members; remuneration of members etc.; transparency; accounting reporting, internal control and risk management; the rights of the owners of financial instruments; the conflict of interests and the transactions with the affiliated parties; the social responsibility; the regime of corporate information.

At a national level, in 2001, the first code of corporate governance was issued; it was revised in 2009 and replaced in 2015, as a consequence of the changes of the national and communitarian judicial frame, with the current code which is better aligned to the Romanian economy (Code of Corporate Governance, 2015).

In the majority of analyzed codes, it is shown that, in the frame of corporate governance, the insurance of transparency is essential in order for the different interested parties to have the possibility to evaluate the financial situation and the real performance of the reporting entities. In this sense, for the parties which are more or less involved in the process of corporate governance (Council of Administration, managers, shareholders, employees and other parties), clear responsibilities as well as the delimitation from the management, respectively from the other interested parties, have been defined and established.

Also, in these codes there is comprised specific information in regard to the accounting reports that have to be elaborated - their periodicity, as well the auditing obligation. Moreover, some codes contain recommendations regarding the frame of accounting reporting which is recommended to use, the specifications that the reports should comply with, and the necessity of the internal control implementation, of a rigorous risk management, of internal audit, as well as the importance and the role of the audit committee. For example in the corporate governance code of Great Britain it is mentioned the fact that the annual report and the drafted accounts have to be equitable, balanced and easy to understand (Great Britain Corporate Governance Code, 2014).

Even though in the majority of corporate governance codes it is shown that transparency is a fundamental rule, through the application of the principle “comply or explain”, the entities are given a great flexibility in the application or non-application of the specific rules and norms (by presenting the reasons that the entities decided to act in a specific way), aspect which could affect this objective. Hence, by giving each entity the right to decide if they want to apply certain rules or recommendations, there is the risk of a certain discretionary application of the codes in the practices of corporate governance, circumstances in which the interests of the different involved parties could be affected by the supplied information.

At a communitarian level, in order to diminish or even eliminate the opportunistic application of the principles and norms that refer to the presentation of information, a series of actions that target the improvement of the transparency of the supplied information were undertaken. Thus, in the guide called "The consolidation of the corporate governance framework of the European Union" (Firescu & Branza, 2013) and in the paper "G20/OECD principles of Corporate Governance" (OECD Report to G20 Finance Ministers and Central Bank Governors, 2015) it is shown that it is necessary to transpose in the national legislations, the corporate governance initiatives and codes.

THE CONNECTION BETWEEN THE SYSTEM OF CORPORATE GOVERNANCE AND OF THE ACCOUNTING ONE

It is worth noting that, the approach of the system of leading and controlling it could be done only in the specific context of each entity and in the environment in which it functions. Through the targeted objectives, this type of approach holds the mark of the property right, and as a consequence imposes the insurance of transparency of the supplied information through the drafted reports.

Through a coherent system of rules, principles, methods, practices and traditions, the system of corporate governance has to insure the strategic leadership and the continuity of an entity such that these could achieve in performing conditions the targeted objectives, and in this way to protect the interests of the diverse interested parties. However, in order to accomplish these objectives it is imposed to assume responsibility towards the different interested parties and implicitly to insure transparency by supplying information in the decision making processes.

In time, it was proven that the architecture of the implemented system of leading and controlling and the relationships that exist among its components are the result of the model of corporate governance adopted and implemented by an entity. Considering the identified relationships among the different involved parties and their interests, the most renowned are the models that are oriented towards the manager, shareholders, employees, state, different interested parties (Vasile, 2013).

According to the relevant published literature, the most promoted classification of the corporate governance models is the one in which these are classified into models of "insider" and "outsider" type. The "insider" model is used by the entities listed at the stock exchange which, usually are owned and controlled by a diminished number of majority shareholders, having in this way a focused structure of shareholders and a dual leadership system (The supervising council and The Directory). Another specific characteristic of the economies in which this model is applied, refers to the existence of a capital market that is less liquid and in which the financial market is not very developed. This is used in Germany, Japan and the East Asian countries (Bostan & Grosu, 2010). The entities that apply the insider model of governance, use in the frame of the process of accounting reporting, IFRS (International Financial Reporting Standards) or both IFRS and United States of America GAAP or United Kingdom GAAP (Generally Accepted Accounting Standards).

Compared to the model of corporate governance of "insider type", the "outsider" type governs the system of leadership and control focused on the stock exchange market, which is specific to the big entities, with a scattered structure of the shareholders and which is controlled by the managers. The capital of these entities is owned by the outside shareholders and is spread in a proportion of 90% on the market, characteristic which does not permit to any of the shareholders the right of having and exercising control over the entities. In principle, this model is used by the big corporations in the United States of America (USA) and in the United Kingdom (UK) (Bostan & Grosu, 2010).

The implemented accounting system in the framework of entitles that apply the outsider model is focused on the application of the GAAP norms which are characterized by simplicity, in which the application of the professional reasoning is primordial. Hence, the objective of the financial statements is focused on satisfying, as a priority, the necessities of informing the investors.

In the context of the harmonization with the European directives, in UK, recently, the listed entities were obliged to apply the IFRS. Thus, in presenting the economic realities, the adaptability of the entities and their capacity of generating cash flow are two benchmarks based on which the purchase or the sale of shares and/or the change of the management teams are decided. However, according to the applied financial framework, the information supplied through the accounting reports has to cater to a much larger spectrum of the interested parties.

At a community level, in the frame of the taken measures for creating and developing an open business environment and of a unique European market, the European Union has opted for the adoption and the implementation of the IFRS in the member states. For achieving this objective focused on the increase of the degree of transparency and comparability, the European Union has elaborated a new general juridical, political and control frame "IFRS". From the characteristics of the two models of corporate governance, it can be observed that reported to their type, the implemented leadership and control system is different from several perspectives: architecture, orientation, shareholder structure, objectives, leadership structure and control mechanisms, as well as the used accounting system which is focused on the supply of information which represents a priority only for some of the interested parties.

Hence, the main inconvenience of the "insider" model is that it facilitates the existence of some close relationships between the capital owners and managers, aspect which could have as a consequence the favoring of some abuses, of some opaque financial transactions, as well as the inadequate use of the attracted capital in regard to the objectives of the different interested parties.

Compared to these, through its characteristics, the "outsider" model facilitates the segregation of the property, of the attributions and responsibilities, and in this way it is directed towards protecting the interests of the different involved parties, especially towards the minority shareholders.

In the practices of corporate governance of big economic corporations, most of the implemented systems present characteristics of both models and of others which are defined in the relevant published literature. Hence, the resulted systems are localized at the intersections of their characteristics. Reported to the predominant model and the economic, social, political and cultural particularities of each country, at an international, community and even national level, different corporate governance structures were implemented and developed (the capital ownership, the control distribution and management).

THE ROLE OF THE PROCESS OF ACCOUNTING REPORTING IN THE SYSTEM OF CORPORATE GOVERNANCE

In order to have an objective image of the relationships described in 1.1 subchapter, it is also necessary to highlight the interferences between the system of leadership and control and the process of accounting reporting through the frames that insured the normalization and harmonization of the norms specific to corporate governance, which directly or indirectly consist of aspects that refer to the accounting reports and the administering of the afferent risks.

Hence, the agency theory could be extrapolated also in the relationships that the leadership of an entity has with the other interested parties. In the given context, the following question arises: if in the circumstances in which these types of relations are materialized, in the frame of the accounting reporting process, the synthesis accounts, which are elaborated to satisfy the need of information of the capital owners, could also be used by the other interested parties. What is more, heuristically, it could also be brought into discussion, the role that corporate governance has in the frame of this process and, implicitly, in the drafting of the accounting synthesis accounts, as well as the role that these have in the governing of an entity.

In the decision making processes of corporate governance, the different interested parties require useful information in regard to the represented economic reality. Actually, the accounting information is the object and the product of the process of accounting reporting, in which through the application of the accounting treatments specific to each entity in part, the financial situation, the performance and the cash flows are expressed through the drafted reports for each reporting period (IASB, International Financial Reporting Standards, 2009; The Order of the Ministry of Public Finances, no. 1802, 2014). Taking this into consideration, it is imposed to approach the existing relationships between the process of reporting and the one of leading and controlling through the frames that insure the normalization and harmonization of the norms from the accounting field, respectively of the accounting reporting and of the practices of accounting information modeling.

In the relevant published literature and in the research carried on this topic it was presented that, not always it is possible to insure the relevance and the credibility of the opportunity (Dănescu, 2007) or of the relevance and reliability, of the loyalty and comparability (Colasse, 2011). In essence, in this way there were highlighted some conflicts and contradictions inherent to the process of reporting, which in a direct or indirect way have an impact over the implicated actors of the diverse targeted parties. Hence, the quality of the process of accounting reporting, through the accounting reports, will leave a mark over the reliability of the implemented system of corporate governance.

According to the national frame of accounting reporting, the utility of the accounting information is insured by the relevance and the exact representation of the presented economic reality. Besides these qualitative characteristics, in order to amplify the utility of the supplied information though the means of the accounting reports, these have to be comparable, verifiable, opportune as well as intelligible (The Order of the Ministry of Public Finances, no. 1802, 2014).

Opposed to the precedent periods, currently the national frame of accounting reporting puts a larger importance on the use of the professional reasoning in accordance with the European directives that are used by the Romanian economic entities. With all these visible progresses, it could still be noticed that the freedom of thinking is limited; aspect which, on the one side gives the accounting reports a rigid characteristic, while on the other it makes the fiscal authorities a privileged user. Thus, through the process of accounting reporting, and as a consequence, through the drafted reports, the need of information of all the targeted users, respectively of all the interested parties which are defined both in the frames of accounting reporting as well as in the ones of corporate governance, is not covered.

Regardless of all the progresses registered in the line of normalization and harmonization, which includes also the adoption of provisions that regard corporate governance in the frame of the public entities (Emergency Ordinance no 109, 2011), as well as the accounting ones which are in conformity with the European directives (The law of accounting no. 82, 1990; The Order of the Ministry of Public Finances, no. 1802, 2014), at a national level the normative frames do not insure an adequate functioning of the market, especially of the capital one.

Public entities consist of the following categories of entities (Emergency Ordinance no 109, 2011):

- Autonomous administrations created by the state or an administrative-territorial unit;
- National entities and organizations in which the state or an administrative-territorial unit is the only, majority shareholder or at which it has entire control.
- Entities at which one or more public entities described above have a majority ownership or an ownership that insures their control.

However, the exception is held by the public entities in which the process of accounting reporting and implicitly the drafted reports are elaborated on the basis of the principles, requests and treatments established through the International Standards of Financial Reporting (IFRS, The Order of the Ministry of Public Finances, no 2844, 2016). Through the facilitation of the application of the professional reasoning, the application of IFRS offers to the drafted accounting reports a better representation of the “loyal image” of the financial position, of the assets, of the liabilities and of the performances (Gajevszky, 2015)..

Still, the application of the IFRS cannot supply an absolute guarantee that the process of accounting reporting, the drafted accounting reports and the information supplied to the diverse users are in accordance with all the aspects of the represented economic reality.

Along with a reduced level of financial transparency, through the carried research on this topic (the practices of reporting of the non-financial entities listed at the Stock Exchange in Bucharest), it has also been highlighted that the financial statements of the analyzed entities have a reduced level of conformity with IFRS (Gîrbină, Albu & Albu, 2012). These types of nonconformities are determined by a reduced level of enforcement of international standards by the regulations organisms, as well as by other factors more or less objective.

Through other carried research on this topic it is shown that, in the frame of the Romanian entities listed at the stock exchange or the ones from the community, the level of comparability regarding the application and the effects of the IFRS implementation is not high (Albu, Albu & Mateescu, 2013).

Furthermore, in certain situations, the use of the professional reasoning incubates the risk of certain manipulative practices in the quantification and the representation of the different aspects of the economic activity, as a result of a reasoning which is non-objective, speculative or in nonconformity with the legal provisions reasoning.

Hence, through the drafted accounting reports, the transparency and the credibility are affected, and in consequence also the interests of the different involved parties, fueling in this way the existing divergences.

In fact, the drafted accounting reports are an image of the way in which the accounting professional, in the frame of the financial reporting process, succeeds at detecting and presenting, through the applicable accounting treatments, the carried economic transactions and operations (The Order of the Ministry of Public Finances, no. 1802, 2014). Besides the marks of the applied reasoning, in many situations, the objective of the "loyal image" is affected by the lack of coherence between the actual principles of accounting, which have been defined in different stages from the evolution and the development of this field, and in consequence they lead to "practical contradictions" over the use of supplied information (Colasse, 2011).

In essence, good corporate governance supposes the existence of some clear provisions regarding the presentation and the disclosure of information, including the accounting ones which are comprised in the codes that are issued in this sense and the aspects considered to be relevant to be comprised in the provisions specific to the analyzed systems and processes.

In the given context, the process of accounting reporting has a primordial role in insuring useful information regarding the past and present of an entity, views that concern the future strategy, the fundamental motivation for making decisions and limiting random selection. Actually, through the drafted reports this will reflect the way in which the implemented leading and controlling system has insured continuity through the efficient management of the business, offering in this way useful information, both to the ones with attributions in the analyzed systems and processes, as well to the capital owners, current and potential investors, suppliers, clients, employees and other interested parties.

THE APPROACH OF THE CORPORATE GOVERNANCE IN THE CONTEXT OF THE PROCESS OF ACCOUNTING REPORTING

It is worth noting, that a large number of the analyzed papers, studies and researches have highlighted and instrumented the associations between the quality of the system of corporate governance and the insurance of the quality of the process of accounting reporting and implicitly of the drafted reports. In the sense of the shown aspects, the most relevant papers in which either some aspects of the corporate governance have been approached or their relationship with the process of accounting reporting, are written by Faccio et al (2001), Black (2001), Klapper and Love (2004), Jandik and Rennie (2005), Love and Rachinsky (2007), Feleaga (2008, 2011), Bostan and Grosu (2010), Crowthe (2011), Albu et al (2013), Danescu et al (2008, 2014, 2015) etc.

Both in the frame of corporate governance (corporate governance codes, specific legislation), as well as in the majority of the analyzed papers it has been highlighted that the structures of corporate governance or some of their representatives, through the responsibilities offered by the act of control and leadership, have a determinant role also in the insurance of the quality of the process of accounting reporting, as well as in the improvement of the credibility of the supplied reports.

Reported to the type of the implemented governing system (Law no 131, 1990), a direct or indirect influence over the process of accounting reporting it is held by:

- The Council of Administration (The Unitary Administration System);
- The Supervision Council and the Directorate (dualist system of administration);
- The committees, especially the one of audit;
- Internal audit;
- Financial audit.

In order to have an objective image of the relationships that exist between the implemented system of corporate governance and the process of accounting reporting it is important to approach them by benchmarking them through the two types of governance defined in the normative frame regarding the Romanian economic entities established as public limited companies (Law no 31, 1990)

While in the unitary governance system, grounded on the principles of French law and on the ones of French inspiration (such as the Romanian one), leadership is insured by a Council of Administration that could delegate the managing of the directors, in the dualist system, which is inspired by the German law, the leading and the controlling of the entity is insured through two distinct structures. Hence, in the frame of the dualist system, the principles of corporate governance are transposed more objectively. Therefore, in the Romanian public limited companies which have chosen the application of this system, if it is implemented in accordance to the normative frame, a better delimitation of the functions which are considered sensitive to the leadership and control of an entity could be insured, and this in turn, could have a positive impact on the process of accounting reporting.

In order to function in accordance to the requests of a market economy, both systems require, in the internal and external decision making processes, useful information that is mainly supplied by accounting; both are responsible for the accounting's organization and leadership (Law no 82 from 1990).

Moreover, the entities that apply the dualist governance system are subjected, according to the legal norms of the statutory audit, and are obliged to have internal auditors. In comparison, in the case of the unitary system, a part of the entities are subjected, according to the law of the statutory audit and implicitly they have the obligation of organizing the internal audit, while in the other entities, the General Ordinary Assembly of the shareholders could decide either the contracting of financial audit or the naming of censors, depending on the case.

In both systems, the General Assembly approves the annual accounting reporting only if this is accompanied by the report of the financial auditors or of the censors, depending on the case.

According to the normative frame, the economic entities that apply the unitary system and have opted for censors` naming, have to insure the supervision of the management of the entity and to verify if the accounting reports are legally drafted and in accordance with the registers provided by the legal norms, and if the evaluation of the patrimonial elements has been done according to the rules established through the frame of the applied accounting reporting.

Compared to these entities, those that apply the dualist or unitary system, which according to the law are subjected to the statutory audit, the financial auditors, through the issued opinions in accordance with the applied audit standards, supply an independent informing of the different interested parties that regard the way in which the entities succeed or not to insure the loyal representation of the economic reality in presenting the information achieved according to the afferent accounting frame (Governance Emergency Ordinance, no 75 from, 1999 and Law no. 162, 2017). In addition, these entities are obliged to organize the internal audit, which given that it is an independent activity; it supplies to the management insurances/ advices for a better organization of the entity's activities. Even though it exceeds the perimeter of the process of accounting reporting, the internal audit represents a veritable support for achieving the targeted objectives, including the ones of the accounting reports, through the efficient and effective improvement of the leadership system, that has to be focused on a rigorous managing of the inherent risks, of the internal control and of the governance processes.

Starting from the importance of the structures of corporate governance specific to each system, in order to insure the strategic leadership of an entity in the context of the globalization and internationalization of economies, in the published literature, large spaces were allocated to the approaches from different perspectives of the role of the Council of Administration, or of the Supervision Council and the Directorate, of the statutory and internal audit, of the Committee of Audit as a guarantee of the independence of the internal audits. In this context, the way in which the different structures of governance could influence individually or collectively, the quality of the process of accounting reporting, as well as the credibility of the elaborated reports has been instrumented (Dănescu, Prozan & Prozan, 2014, 2015).

Independent of the applied governing system, the Romanian economic entities have accounting reports that are different based on the category of entity in which these are framed (IFRS, The Minister Order of Public Finances, no 1802, 2014). By having different structures, components and elements, the reports are different also from an informational perspective from an entity to another, and in turn could satisfy different needs of information or supply only a part of the necessary information to the diverse interested parties. Actually, the accounting reports are an image of the way in which the process of accounting reporting, integrated in the system of governing and the informational one of the entity, can surprise and present, more or less objectively, the achieved economic transactions and operations (IFRS, The Ministry Order of the Public Finances, no 1802, 2014).

Even though, through the elaborated reports there cannot be insured an adequate protection of the interests of all the interested parties, it could still be noticed that the entities in which a system of corporate governance adapted to the specific and complexity of the carried activity (components, component structure, clear establishing of attributions, the delimitation of the sensitive functions) is implemented, in which the accounting reports are elaborated according to IFRS, and are subjected to the internal and financial audit, both the transparency and the utility of the information are better.

As a result of the operational researches carried on this topic, based on the foreseen benefits, in some of the papers it has been highlighted the importance and necessity of the extension of applying corporate governance also in the practice of the small and medium sized entities from Romania, or at least of the principles that govern the system (Dănescu, Prozan & Prozan, 2014). Hence, the implementation of the system or only of the principles could contribute to the estimation of the capacity of the entity to generate future cash flows or improve the supplied services; aspects that would insure the continuity of the considered entities.

The existence of some frames of governance and accounting reporting adapted to the requests of a functional market economy and of a healthy business environment and the transposing of these in practice, constitute the necessary premises for the implementation of some coherent and functional systems and processes of corporate governance and accounting reporting, adapted to the specific of each entity.

Having a double role, both as information supplier, as well as a mediator of the divergences that exist between the expectations of the implicated actors and of the different interested parties, the process of accounting reporting has the print of the system of leading and controlling. Thus, the insurance or non-insurance of the quality of corporate governance will have a positive or negative impact on the process of accounting reporting and on the credibility of the drafted reports, and as a consequence on the different interested parties.

WAYS OF INSURING THE TRANSPARENCY AND THE UTILITY OF THE ACCOUNTING INFORMATION IN CORPORATE GOVERNANCE

Actually, the strategic leadership of an entity is insured through the application in the governance frame of the norms, theories, principles and models specific to the corporate governance, process in which the transparency and the utility of the information are essential. In the given context, in the frame of the leading and controlling system, respectively in the process of accounting reporting, it is essential to correspondingly identify and apply some mechanisms of internal control through which a rigorous risk management could be insured, that could affect the accounting information of the different interested parties.

By quantifying the accounting information, based on the quality characteristics defined in the applied accounting reporting frames and of the requests of presentation of the information and insuring the transparency according to the principles and rules comprised in the codes of corporate governance, an important role in these approaches is held by the internal control and risk management.

Hence in the theories focused on the insurance of an efficient and transparent business management, the orientation of the management towards the maximizing of the value of the entity and the protection of the interests of the different involved parties, the accounting produces an "encrypted model" (Colasse, 2011), that is intelligent and understandable, in which the accounting information offers to the users a certain image of the presented economic reality through the accounting reports.

Even though the accounting information is constructed through the application of the accounting norms and principles, the application of the professional reasoning in the identification, selection and application of the accounting policies and procedures, at which there are also added some specific divergent interests of the involved actors and/or some limitations and constraints inherent to the systems and processes through which they are obtained, the accounting information shows the image of reality that the involved actors want to show to the interested parties.

Therefore, the insurance or non-insurance of the conformity of the activity of producing, presenting, reporting and communicating of accounting information reported to the established systems of reference through the considered frameworks, will be reflected also in the quality of the drafted accounting reports, as well as of the supplied information, and, implicitly, in the decision making processes of the different interested parties.

The undertaken empirical researches on the modelling practices of the accounting information from the frame of the Romanian economic entities have highlighted that the loyal image of the represented economic reality, through the accounting reports, in many cases has been affected by a series of risks that have different localizations and effects. Actually, the identified nonconformities have affected the credibility of the economic entities in report to the different interested parties.

Starting from the contract metaphor (Jensen & Meckling, 1976), a series of conflicts of interest generated by the existing relationships between the shareholders of an entity and its managers have been highlighted. By having different goals, objectives and interests, the two parties have different attitudes, perceptions and approaches in regard to the inherent risks of the entities' activities and objectives. In the shown context, with time, there were identified several actions, inactions or ways in which managers, through the taken measures and actions, mainly act in order to maximize their benefits or for other personal advantages, in the detriment of the targeted objectives by the other interested parties. In this respect, relevant are the actions or inactions focused on: carrying out some investments which are inappropriate or have debatable or unrealistic perspectives, choosing an excessively risky profile compared to the approved level of risk tolerance, the lack of transparency of the decision making process or the insufficient involvement in the management tasks.

In essence, orientating the managerial actions towards the achievement of their own interests in the detriment of the different interested parties, especially of the shareholders and of the investors highlights even some dysfunctions of the implemented system of corporate governance. A part of these are generated and fueled by the actual informational system, in which an important role is held by accounting through the accounting reporting process and the drafted reports. Hence, some of the causes of the informational risks of the process are generated by the non-adoption, ignorance, non-application or the non-adjustment of the accounting policies and procedures to the specific and complexity of each entity. These deficiencies target even the way in which the process of accounting reporting accomplishes the targeted objectives and applies the accounting principles and treatments in representing the economic reality. Hence, the utility of the information will make a mark on the quality and the way of functioning of the system of leadership and control, as well as on the decision making processes of the different interested parties.

As a result of the process of accounting reporting, in which, in the practices of modeling there is a compromise among the different constraints, limits, exigencies and multiple expectations, in some situations, the supplied information is constructed on the basis of opportunistic reasoning, or of subjective or non-ethical interpretations. These practices affect the objective of the loyal image of the accounting reports, and as a consequence, the users of the supplied accounting information.

In order to eliminate this type of practices, the entities should identify adequate mechanisms of internal control reported to their size, complexity and to specific of activity. Also, improving the information asymmetries that affect the decision making processes of all the interested parties imposes the implementation of a prospective and proactive risk management of the inherent risks, both to the implemented system of corporate governance as well as to the process of accounting reporting. In this context, primordial is the knowledge and the application of the accounting principles, rules and practices, as well as of a good corporate governance; these in fact are veritable mechanisms of internal control.

Taking into consideration the fact that some informational asymmetries are determined by the conflicts generated by the divergent interests of the different interested parties, in order to improve them it is also important to adequately motivate the management. In these conditions, the actions of the management will be focused on adequate measures and actions reported to the inherent risks that could insure the sustainability of achieving, in performing conditions, the entity's objectives. Hence, besides protecting the interests of the capital owners and of the investors, supplying useful information in the internal and external decision making processes is one of the essential requests of insuring the transparency and implicitly of an adequate necessary frame for protecting the interests of the minority shareholders that usually are disadvantaged, as well as of the other interested parties, respectively of the environment in which the entity carries its activity.

FUTURE RESEARCH DIRECTIONS

The synthesis accounts are drafted by the accountants, but carry the responsibility of the leadership. Hence, these have an ambivalent function, on the one hand they facilitate the monitoring and the controlling of the leadership by the capital owners, as well as of the managers by the administrative structures, while on the other hand they could constitute a veritable "buyback instrument", which can be manipulated in their interest. Besides the application of the ethical principles by the accounting professionals, especially of the ones of integrity and objectivity, it is necessary to improve the risk management through an adequate internal control, as well as to audit the process through which the codes are drafted, and also to improve the way of presenting the represented economic reality.

In this context, new approaches of the corporate governance and of the process of accounting reporting should be imposed, in which their relationships with the processes of internal control and risk management, respectively of internal and financial audit should be instrumented.

CONCLUSION

In an extremely dynamic international environment, affected by the systemic risks that put in jeopardy both the business continuity as well as the developments of the economies in which these interfere, in order to cope with a fiercer competition, entities generate different systems, processes, control mechanisms and behaviors. In the given circumstances, we highlighted the need of adequate leading and controlling systems that could insure a rigorous risk management of the inherent risks. Hence, in order to protect the interests of the different involved parties, which is the focus of the theory or model of implemented corporate governance, an important role is held by the process of accounting reporting.

In the context of the shown aspects, the architecture of the leading and controlling systems carries the mark of the frames, theories, principles, models and practices of corporate governance.

The development of a competitive business environment requires the improvement of corporate governance, through the extension and the adaptation of the existing normative frame to the intervening changes and transformations, as well as to the way in which this is transposed in the governing practices. Moreover, the governing systems and practices have to be adapted to the specific of each entity, as well as to the environment in which they function, and in this way, the implementation and the functioning of some structures of corporate governance, that could determine the improvement of the reporting process in which the integrity and the transparency of the accounting approaches is essential, could be insured.

The practices of governing and of drafting the accounting reports that exist in the big corporations emphasize both the inefficiency of the control mechanisms as well as of those through which the acquiring, presentation and communication of accounting information which is reliable, comparable, relevant, opportune, intelligible and significant is insured. In principle, these have been determined either by the lack of some corporate governance frames or by the existence of some which are inadequate, or by the way in which the norms and rules are transposed in the frame of the implemented systems and processes.

There are different perspectives of approaching the internal control in the perimeter of the process of accounting reporting and of risk management that could affect the transparency and/or the utility of the information or the equilibrium among the attributes of comparability, relevancy, intelligibility and credibility. Some approaches are focused on the way in which internal control contributes to the achieving of the entity's objectives, respectively on its management, and implicitly on the implemented system of leading and control, others start from the actual objectives of the internal audit and/or financial objectives, while others focus on the ways in which the conflicts of interest could be improved and of the different informational asymmetries.

As a result of the carried research, it is implied that the information asymmetries are determined by a series of factors which are internal or external to the process of accounting reporting and they have a multitude of implications in all the fields of activity of an economy. In this context, the adequate approach of the inherent risks solicits the identification of some reliable solutions for the improvement of both the process through which the information supplied to the diverse interested parties is obtained, as well as of the system it belongs to.

From the analysis of the drafted interdependency relation between the process of accounting reporting and the system of leadership and control, it could be noticed that the insurance/non-insurance of the reliability of the information system of an entity makes a mark over the way in which the principles and rules specific to corporate governance are understood and put into practice. Hence, as a supplier of information and as a mediator between the expectations of the involved actors and of the different interested parties, it could be mentioned that the process of accounting reporting does not insure, in all the cases, useful information necessary to the leading and controlling system.

Insuring the transparency and the utility of the accounting information is dependent on an accumulation of factors, internal or external to the entity, which directly or indirectly make a mark both on the leading and controlling system as well as on the process of accounting reporting. Besides the existence of an adequate system of corporate governance, entities require an appropriate internal control system and a prospective and proactive management of the inherent risks of all the carried activities. Also, the analyzed systems and process have to be approached as an integrated system,

Quintessentially it could be affirmed that only in this way it could be insured the correct knowledge, understanding and transposition in the practices of information modeling, through the drafted reports, of the principles, policies, norms and procedures specific to each activity field.

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Chapter 8
Ethics in Accounting and Finance:
Actual Issues and Controversies

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ABSTRACT

Accounting and taxation are two key functions for optimal performance of an entity's economic activity. Accounting, on the one hand, helps to provide the information needed for decision-making, and taxation, on the other hand, helps to find resources and use them efficiently. These two systems cannot function properly without trust, without ethics. This chapter aims to study the issue of applying ethical conduct in the fiscal and accounting field as well as to analyze the causes and consequences of ethical and unethical conduct specific to the topic addressed. Also, this chapter aims to present some proposals and recommendations for solving the identified problems.

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INTRODUCTION

Since ancient times, each culture has relied on certain financial reporting systems so that trade can be facilitated, but also so that taxation can be carried out. Significant frauds have been recorded over the past two decades in the accounting and tax system, which has had global economic effects. Thus, large companies that have proven fraudulent accounting and taxing conduct (Enron, Worldcom, Lehman Brothers, etc.) have experienced colossal losses, both financially and public credibility. These unfavorable cases have led to the deterioration of social welfare, and even to the determination of one of the world's largest economic crises. Therefore, the existence of an effective financial reporting system, so that such cases can be prevented, becomes a necessity in the global economy. Therefore, the legislation emerged after the events mentioned aims to limit fraudulent conduct, so that similar situations can be prevented, and professional ethics is also being discussed.

Taking responsibility for the purpose of acting in the public interest is a distinct feature in the financial and accounting field. For this reason, the responsibility of a professional accountant is not solely to meet the needs of a client or an individual employer. By acting in the public interest, a professional accountant must comply with and apply an accounting code of conduct.

Taking into account the rapid globalization that has taken place lately, national legislation is no longer sufficient to deal with possible cases of tax evasion and fraud. Thus, the International Federation of Accountants (IFAC), together with the International Ethics Standards Board for Accountants (IESBA), has developed an Accounting Code of Conduct applicable to all professional accountants.

This chapter, consisting of 6 parts, aims to present issues and controversies related to professional ethics in accounting and part of the finance, taxation. The main objective is to highlight the current problems on this issue, to raise awareness of the need for professional accountants and tax advisors to maintain their virtues and ethics, so that professional ethics is not affected by potential incentives obtained by acquiring an unfair, unethical or fraudulent conduct.

BACKGROUND

Accessibility to information, the high degree of freedom of movement of people and entities, the elimination of borders between states in the European Union, as well as the significant increase in international transactions and foreign investment gave rise to a mutual need for collaboration in the financial and accounting field at Member State level.

The accounting profession assumes responsibility for acting in the public interest. Therefore, the professional accountant must adhere to a set of principles and rules in order to meet the needs of a client or an employer and to ensure the operation of the public interest. The Ethics Code for Accountants Professionals, internationally agreed and adapted to each country's needs, presents the fundamental principles that a professional accountant should follow to adopt an ethical conduct. However, some researchers believe that the professional accountant should have certain virtues and an ethical character, and not just follow a set of rules and principles imposed by a Code of Ethics. According to Applbaum (2000), the responsibilities and duties of a professional accountant can make it susceptible to pressures on the role of morality, and the latter is defined as "claiming a moral right to deliberately harm others." Morality is therefore an essential feature that a professional accountant needs to have in order to maintain his profession to a high level of integrity. The ethical duty of a professional accountant is more than a financial debt. It opens up to areas such as the social responsibility of entities, making an effort to ensure that the entities and individuals they give advice know their own ethical responsibilities. Accounting is the basic pillar for the efficient operation and efficiency of any system in a state, and ethics supports the smooth operation of all processes involved.

Elements of ethics become part of social responsibility, because obviously a socially responsible attitude presupposes, first of all, an attitude that respects the principles of ethics. The affirmation of social responsibility is manifested in the conditions of contemporary society as a requirement, as an increasingly pressing necessity is regulated by an ensemble of ethical norms or imposed by imperative legal norms. Under these conditions, the assertion in the daily reality of the requirements of the components that make up social responsibility has become an ethical and legal obligation for commercial societies imposed by the general interests of the community.

Tax practice is a component of the accounting profession that puts pressure on customer service and maintains the integrity of the tax system. This tension can be diminished by applying professional, ethical and moral accounting conduct. Numerous researchers study the causes of ethical issues that have affected the accounting profession over the last two decades (ie, Stuebs & Wilkinson, 2010, Sikka & Hampton, 2005, Kadous et al., 2008, Dillard, 2008).

Given the recent history of scandals involving accounting conduct, the credibility of the public accounting profession has dropped significantly, losing one of the core responsibilities of the professional accountant. More recent research in the field suggests that there is a growing interest in studying the ethical conduct of professional accountants.

Ethical behavior is lost when personal gain is based on losses caused to third parties or to society. According to Gino (2015), intentional unethical behavior occurs when an individual deliberately mistakes, not being aware of the forces that affect his judgment. On the other hand, unintentional unethical behavior is when an individual acts unethically beyond their own knowledge.

Johns (1998) describes the main causes of unethical behavior adopted by an individual as: winning, competition, organizational culture, conflict of roles, personality.

More recent research in the field suggests that there is a growing interest in studying the ethical behavior of professional accountants. Moreover, since the 1980s, several institutions have encouraged education in accounting ethics (Mele, 2005), and today it has come to the fact that it has been present in schools since the beginning of the accounting profession. However, the accounting scandals that took place in the year 2000 prove that greater emphasis is needed on education on accounting ethics, but also on improving codes of ethics. Thus, it is noted that, despite the increased interest in this issue, there are certain deficiencies in the principles, virtues, values and rules that undermine the credibility of the accounting profession.

CONTROVERSIAL ISSUES IN ACCOUNTING AND FINANCE

Ethics is the basis of human relationships. The role and purpose of ethics, from the outset, has been to preserve man as a person, so that human dignity is an essential condition for a better living. Today, human culture is increasingly influenced by the competitive environment, thus confronting crises and turbulences that are more and more frequently due to the phenomenon of globalization. Thus, the "relativization" of recent human principles and values certainly leads to the decline of trust in society, including the certainty of answers to the fundamental questions of human existence. Since man is always living in a mutual exchange of giving and receiving (so in human relationships), it is necessary to realize that we are living in a relationship of interdependence with the people around us.

Ethics can be defined as a code of conduct applicable to any situation when the correctness / inaccuracy of certain actions of an individual are involved, with the aim of achieving an expected outcome. In the financial and accounting field, ethics is an essential feature for optimal performance of micro and macro-economic activity.

Business ethics has become an increasingly attractive topic both for business people and for researchers. Concerns about unethical, even fraudulent behavior are focused on how business ethics is applied. Thus, in the accounting profession, a particular interest in controversies and ethical issues is given. In this respect, the competent bodies of the accounting profession have adopted a strict code of ethical conduct, which states must follow closely, and those wishing to become accountants must pass a business ethics examination to obtain the qualification. So, business ethics is a hot topic today, even developing, both in Europe and the US, mainly due to business scandals. A concrete example is the case of Exxon Valdez (since 1989) or, more recently, of a German car company Volkswagen. Lemke and Carl (2018), in a study, both about the origin of business ethics and about the current state of research and development in this field, focuses its objectives on fundamental positions and key arguments in business education, business is based, mainly on a social function of entities, based strictly on the phenomena of values.

Various research has been carried out in the literature on business ethics and its objectives (McDonald & McDonald Donleavy, 1995; Herndon, 1996, Schwartz, 2001; Hosbay, 2014; Gravelle, 2015). Ethical education should therefore increase the need for the human being to adopt moral behavior towards other people. In the literature, it is considered that the objectives of accounting education and ethical conduct are not treated with sufficient interest and depth (Loeb, 1988; McDonald & Donleavy, 1995; Herndon, 1996). Thus, some researchers (McCuen, 1994; Webb, 1996) consider that ethics should not be part of the curriculum usually used in educational cycles, nor should it involve the use of codes of conduct in a mechanistic, logical, and non-non-critical way. In fact, Webb (1996), in his paper, considers learning the abstract ethical theory not the most important. Others (Baylis & Downie, 1989; Saunders, 1995) are of the opinion that learning ethical principles and concepts from an early age could be useful for developing ethical and moral behavior.

Arsalidou (2017), in his work, wants to find solutions for global organizations to be able to change their actions so they become more ethical and, implicitly, more transparent. In this respect, it analyzes the main causes of a financial disaster, being closely related to bankers' attitude, mentality and behavior: Excessive greed that pushes them into dangerous temptations (eg securitization and short maturity), behavioral limitations (eg trust and optimism excessive knowledge of financial products and risk awareness. In this context, an alternative way to prevent these causes is considered, which is considered to be useful and lasting in the long run, namely education. It has been found that education on social responsibility helps significantly to eliminate these causes. From this point of view, the role of ethical education can be analyzed in a triple hypostasis. First, it can teach potential future leaders to act altruistically and act responsibly for social purposes. Secondly, it ensures commitment to a primary goal of sustainable development - pursuing all the interests of the parties involved in the smooth running of the activities of an entity, not just the interests of the shareholders. Thirdly, it is essential for future leaders to be aware of behavioral deficiencies that often characterize those who hold senior management positions; the risks of a biased judgment; the risks of lack of knowledge regarding the financial contrasts of the organization. Thus, ethical education helps to stabilize integrity at the entity level, increases transparency and improves corporate governance, all based on business ethics.

Oates, G. and Dias, R. (2016), in their work, study how ethics is included in the curriculum of postgraduate courses in financial and banking. They discover that over 90% of the courses studied in their application do not include ethics as distinct matter. Of the 10% of ethics courses as distinct subjects, they teach those who attend basic level courses with a small number of teaching hours and provide basic "ethical" ethical information to learners. Of these courses, only a few are ethics courses distinct as subjects. Also, the researchers, following their above-mentioned work, believe that there is little emphasis on professional ethics, and estimates of available information on ethics in organizations lead to the idea that little attention is paid to this topic that has left us proven over time that it is vital for the professional moral training of the professional accountant, financial and tax professionals.

The ethical conduct of the professional accountant guarantees not only professional but also moral service. So, information users need credible accounting information to help them make decisions or control. In an ideal setting, the ethical conduct of professional accountants is present in any given situation. The purpose of accounting is to reflect a "true and fair value" of an entity at a given time. Accountants, however, have to respond positively to the need for performance that managers have, from where ethical issues can begin. The purpose of accounting is to reflect a "true and fair accounting" of an entity at a given time. However, accountants have to respond positively to the need for performance managers, from where ethical, moral and value issues can begin. The professional accountant's virtues must be well-rooted within them, dosed and supplemented by adapting ethical and responsible behavior to meet the requirements of managers. That is why professionalism, ethical conduct, morality and risk awareness are among the most important features that a professional accountant should have in mind when compiling the financial statements. The Code of Ethics issued by IFAC requires a set of rules and principles to be followed by the professional accountant.

Accounting and ethical behavior can be compromised when there are certain hidden interests. The many cases of late-breaking ethics in accounting and taxation have involved unethical behavior by professional accountants through fraudulent financial reporting or embezzlement. Money laundering, embezzlement, evasion and tax fraud and highly publicized tax fraud are the main pillar when we recall cases of violation of accounting and financial ethics. Applying unethical behavior both in the accounting and financial sphere can result in very serious consequences, such as liability before the law for illegal, perhaps criminal, acts.

An ethical problem in the financial and accounting field is attributed to innovation, creativity and the use of obsolete computerized accounting systems. Therefore, it would be ideal for a professional accountant to update his / her knowledge baggage, both from the point of view of the development of the practiced profession and from the point of view of the emerging technology that improves the way of work but also enhances the transparency internally by disclosing the practices used in performing the work procedures and externally through the information reflected in the company's reports).

The consequences of unethical behavior for a commercial science could be:

- Loss of promotions, benefits, prizes, appreciations;
- Loss of employment, some percentages of salary;
- Loss of trust, respect and dignity;
- Relegation;
- Loss of appreciation from the boss, friends, colleagues, family, etc.

Ethical Issues in Accounting

During the 1980s, the accounting profession suffered mainly due to the financial collapse of renowned multinational companies and multinationals whose audiences have given unqualified views to their financial statements. Some researchers (Giacomino, 1992; Ponemon, 1995, Ashkanasy & Windsor, 1997) concluded that the financial audits performed within these companies were not reliable enough to provide financial information users with significant financial problems. Twenty years after the first scandals in the early 2000s, a new wave of financial scandals broke out at multinationals: Parmalat (Europe), Worldcom and Enron (USA), Harris Scarfe and HIH (Australia). Thus, for this reason, the accounting and commercial practices of many companies have been questioned, as well as questioning the role of their auditors. In the accounting profession, they had the effect of affirming the need to develop the standards of ethics and integrity applicable to professional accountants and financial auditors (Gaa, 1994).

In the financial and accounting field, ethical issues may arise due to:

- **Innovation and creativity:** Appear due to gaps in regulations and used to "manipulate figures" to achieve the expected accounting result. Here can be mentioned some specific practices:
  - Accounting manipulation;
  - Manipulation of accounts;
  - Creative accounting;
  - Financial engineering;
  - Financial fraud;
  - Earnings management;
  - Reduction in income, manipulating inventory, etc.

- **Conflict of interests:** this is not ethically permitted, and the professional accountant, as soon as he finds himself in this situation, must notify the stakeholders of the incident;
- **Requested gifts and fees:** they threaten the ethical conduct of the professional accountant. Fees must be appropriate to the work done, while gifts for the service provided should not exist;
- **Use of obsolete IT:** it can lead to unethical conduct when using a primitive computer system in good faith, which does not allow for close monitoring of the economic and financial activity, thus reducing the transparency of the information presented in the accounting.

All these means used in unethical behavior can give rise to the moral hazard phenomenon in which at least one of the users of information is not properly informed about financial-accounting activity.

Innovation and creativity in accounting and taxation create a lot of controversy among scholars, some saying that they are unethical behaviors, while others believe they are perfectly ethical. Some are of the opinion that these practices are at the limit of the law, being permissible, agreed and existing in each entity, which implies the ability to interpret the results, determine the usefulness of certain information and, last but not least, raise the issue of ethical professional conduct. An example in this respect may be the favorable presentation of financial-accounting information in the Explanatory Notes. However, other researchers are of the opinion that ethical issues can be created by adopting fraudulent creative accounting methods when it is deliberately intended to mislead information users (shareholders, investors, managers, the state, business partners, etc.) so that they can handle the accounting result. From this point of view, it can be said that the practice of creative accounting shows unethical accounting behavior. Danone, for example, used creative accounting practices that were not ethical. It ended by declaring bankruptcy, all due to the accounting problems that have been recorded over time. Steethhoff of South Africa also used unethical accounting practices, which led to a fabulous over 80% crash in Johannesburg and Frankfurt stock exchanges in just two days, and the company's market value has fallen by more than 12 billion euros.

Ethical Issues in Finance and Taxation

Global requirements for sustainable development, changes in the globalization-based economy, and the rise in the amount of information that has emerged lately also significantly change the requirements for a professional accountant, financial and fiscal. Moreover, the examples of practice on inappropriate ways of moral and ethical conduct, especially in the financial and banking field, have set the spotlight on the professional, financial and fiscal professionals in society. Therefore, it is also necessary to develop and update the university and postgraduate curricula in the financial and accounting field, including ethics and integrity as distinct subjects in curricula so that professional accountants can adapt to the needs of the labor market. In view of the above-mentioned aspects of the financial scandals of the last decades, when a significant ethical crisis has been identified in the financial and accounting profession that has affected the world.

From tax optimization models to fraudulent tax evasion, unethical tax practices are present all over the world. Thus, the credibility of the banking industry and of multinational companies has fallen significantly at this stage, mainly due to moral and ethical failure, but also to the lack of organizational integrity. Thus, the credibility of the banking industry and of multinational companies has fallen significantly at this stage, mainly due to moral and ethical failure, but also to the lack of organizational integrity. That is why, lately, criticism is moving towards financial institutions because they are considered to focus on maximizing financial returns (and giving bonuses and rewards to financial staff), acting to the detriment of most of society.

In the last decades, a large-scale ethical crisis in tax profession occurred, affecting the whole globe. From tax optimization models to fraudulent tax evasion, unethical tax practices are present all over the world.

There are two terms: tax avoidance and tax evasion. Tax avoidance is a legal tax practice whereby entities evade tax and legal fees while tax evasion is an illicit tax practice whereby certain gains are deliberately hidden to avoid being taxed.

The large corporations of the world, through the specialists they have, always look for a regulatory loophole that will allow them to reduce the tax they have to pay to the state budget.

The possibilities of shifting profit between jurisdictions can be a cause for the development of these standards. These profits can take many forms, simple and complex forms. Today, tax optimization practices are found in many of the big companies. Some of the best-known practices are those adopted by Apple, Google, Starbucks, Amazon, etc. The large corporations of the world, through the specialists they have, always look for a regulatory loophole that will allow them to reduce the tax they have to pay to the state budget. For example, in the case of Apple, the tax optimization model applied to pay taxes as small as possible, due to ambiguities and shortcomings in US law, as well as Ireland's legislation: the parent company Apple Inc. is located in the USA. It ceded the economic rights of intellectual property to an affiliated company in Ireland (Apple Sales International). Apple products are designed in a China-based company that registers revenue from their sale and sends Apple products to another company, Apple Distribution International (ADI). The Irish company buys the products manufactured to the Chinese entity and resells them to Apple Distribution International, which in turn sells them as a final product worldwide. Thus, Apple Sales International (ASI) records revenue from sales to ADI. ASI pays dividends to Apple Operations Europe (AOE) and AOE pays dividends to the US parent company. Most of the proceeds from the sale of products worldwide are recorded by the ASI of Ireland using transfer pricing and additions. The reason why Apple has developed such a scheme may be the extremely low tax rate that the Irish government has negotiated with the company. Normally, the profit tax rate in Ireland is 12.5%, but Apple has negotiated this share of up to 2% and even less. Because Apple's largest Apple companies are located in Ireland, and US law currently envisaged the place where the company was born to determine the residency tax due, Apple avoided paying US taxes and duties, and in Ireland paid very small amounts. From this case, there is a clear question: Is Apple showing ethical behavior or not? To whom?

The study of licit and illicit tax evasion practices is extremely current, especially as the authorities have developed a set of standards and regulations to prevent such practices (e.g. FATCA, CRS Standard, European Directive, national legislation). These standards and regulations, which together with the Code of Ethics should help increase transparency in tax reporting and improve ethical tax behavior, have sparked controversy among both legal and physical persons, affecting the entire population. From a certain point of view, these regulations should increase the transparency of financial reporting, so professional accountants would be forced to adopt superior ethical behavior. Others (Michel & Rosenbloom, 2011; Book, 2012; Woods, 2016; etc.), however, believe that these new regulations develop the imagination and creativity of professional accountants so that ethical behavior is seriously compromised. This argument is reinforced by studies demonstrating that tax optimization and evasion practices are still being committed due to the gaps in the new regulations.

In general, banking ethics is a system of rules and rules of conduct designed for the banking institution and its staff (Hassan, 2005).

Banking ethics is a particular form of economic ethics, representing the set of rules and moral norms that target the conduct of banking workers in banking (banking business), both individually and collectively.

By debating the financial field, one can remember the global economic crisis of 2008, which was caused by errors in the banking system. Thus, the vulnerability of the financial system was caused by complicated and leveraged financial transactions and operations, the US monetary policy setting a negligible credit price and thus favoring a very high leverage effect, this phenomenon being called a "financial sector hypertrophy." Thus, "financial engineering" practices, when large banks have "packaged" the products offered (loans with low or high risk of non-collection) into derivatives (by-products such as options, futures, ETFs, CFDs), were used more and more often until they had no market coverage, and eventually collapsed.

In fact, multiple examples can be listed in this respect. For example, at the beginning of 2009, another fraud has come to light, condoned by Stanford Financial Group and Stanford International Bank, based in Antigua. They promised massive profits on deposit certificates, but hijacked eight billion dollars. Finally, the founder of the group was arrested and charged. Another example of unethical and fraudulent behavior is offered by the trader at Societe Generale, who has defrauded the eight billion dollar bank, acting without the knowledge of his superiors, engaging in very risky transactions on the derivatives market.

Within the banking field, there is also a need to adopt ethical behavior (recalling the social responsibility that a bank employee must be liable for). Thus, each bank creates and adopts its own ethical code of conduct, training its employees on how they can engage in such professional conduct.

SOLUTIONS AND RECOMMENDATIONS

The competent national and international authorities (international IFAC and IESBA, as well as AICPA and others) are always trying to find solutions to these issues, which is why the legislation in the field and the Code of Conduct are constantly changing, keeping pace with all issues which arise with the economic development.

In the accounting field, it is noted that the priority for IESBA and IFAC is to increase the degree of co-convergence of international and national ethical standards, leading to better management of all resources. Also, convergence of international standards with national standards is particularly important for multinational companies for obvious reasons. However, at international level, there is a difference between the principles of ethics (adopted by IFAC) and those based on the rules of the American Institute of Authorized Public Accountants (AICPA), which is why there are still many ethical issues at the level globally, especially within multinationals.

Table 1 includes some solutions proposed by other research in the field of detecting or preventing unethical accounting and tax conduct, mentioning the authors.

Solutions and Recommendations on Ethical Conduct in Accounting

Authorities, together with professional bodies, strive to stop unethical conduct among accountants by adapting legislation to market needs and eliminating gaps in the current legislation.

For the professional accountants to conduct their work ethically, the authors propose to reflect on the issue from the perspective of:

Table 1. Ethical misconduct in accounting and finance detention or prevention – a short literature review

Authors & Year	Ethical Misconduct Detection or Prevention
Albrecht, 1991	• “fraud triangle” theory - used to detect the possibility of fraud within an entity. It has three characteristics: opportunity, incentive / pressure, rationalization / adopted attitude.
Vladu et al., 2016	• method of detecting profit manipulation using economic and financial indicators calculated on the basis of the financial indicators found in the financial statements
Cowton & San-Jose, 2016	• a method used to identify commercial credit ethics, distinguishing between commercial and financial commercial credits. Applying this method, it may be found the maximum time for the company to postpone the payment of the commercial credit.
Soltani, 2014	• identifies possible new causes of unethical conduct, including: inappropriate corporate governance, inadequate internal control, dysfunctional conduct of managers, unprepared members of the Board of Directors, etc.
Pilaj, 2015	• the scholar has developed a conceptual framework to improve the efficiency of the regulatory process for sustainable investment.

Source: authors’ research

- The education of the professional accountant from the earliest stages, including the character and moral principles acquired over the course of his life;
- Influences from the internal and external environment that push him to resort to ethical / unethical conduct;
- The financial reporting framework and gaps existing within it;
- The ability to learn new techniques and adapt to dynamic environments;
- Life experience from different domains;
- The level of professional training in the field, etc.

Solutions and Recommendations on Ethical Conduct in Finance and Taxation

The phenomenon of globalization has called into question the need to improve tax regulations at international level. Thus, with the expansion of businesses outside the jurisdiction of mothers, questions began to arise as to how to tax: where is the activity taxed, how should the company’s activity take place, under what conditions? Whose laws will be subject to the entity? etc. For these reasons, the European Union and other international bodies have reached a consensus by drawing up various rules applicable by the Member States on how to tax the activity of citizens of Member States or entities operating in another Member State. The most obvious way for tax authorities to avoid unethical tax practices is to try to impose greater constraints on this type of activity. For example, an approach is to strengthen, crush and rigorously impose taxation on foreign controlled companies. This would reduce the ability of companies to evade taxes, as these companies, if they would not want to comply with tax regulations, should invest in more advanced, sophisticated techniques that would involve more cost large for shifting activities, which would reduce the benefits of these companies.

It also proposes closer collaboration between professional bodies and fiscal, but also psychological authorities in order for the expected outcome to be clear, effective and to combat these unethical practices.

A recommendation from the authors is to research the fiscal field closely by studying the tax practices adopted by companies, questioning the link between ethical, moral and integrity conduct and accounting and fiscal professionalism.

Solutions and Recommendations on Ethics Education in Accounting and Finance of Professionals

As stated above, it is noted that there is a particular interest in researching the way in which the professional accountant is taught to act in the professional economic environment. Numerous studies (presented in the previous subchapter) prove that education in professional and accounting professional ethics is of topical interest in universities and vocational training centers. Ethical education must be explicitly or implicitly ensured in all dimensions of life, structured, regulated and monitored through appropriate educational methods and tools. There is a growing emphasis on the way the professional is taught to act morally and ethically, on how they can cope with the business and economic environment by proving ethical and moral behavior. Higher education institutions are committed to engaging future professionals with appropriate skills and competences, including ethics and professional integrity, to enable them to effectively carry out their work on the labor market. Therefore, the ethical component, the skills and competences inherent in the preparation of the professional accountant and the financial expert must find their balance so that all of the above can be applied in practice.

There is also a need to value the education of pre-school children in adopting ethical and moral behavior in everyday life, so that when they reach the business world it is easier to understand and apply ethical and moral principles.

Ethical conduct in practice has been increasingly recognized as vital for the accounting profession, especially after Andersen's collapse. The fundamental principles underpinning ethics and responsibility are given relatively uniform recognition throughout the world. From a historical point of view, the teaching of accounting techniques has been isolated from the personal assimilation of students' ethical accounting values. For this reason, it is necessary to instil moral and ethical reason and behavior from the very youngest ages so that future professionals act for the purpose of their professions, thus avoiding unethical situations and behaviors with which society has faced in the past, as described above. Therefore, this chapter emphasizes the need to introduce these concepts of ethics in the academic and pre-university courses.

FUTURE RESEARCH DIRECTIONS

Future research directions can be numerous, from detailed analysis of what professional accountants understand through ethical / unethical conduct and the determination of the real factor for which they adopt one of the two conducts. Moreover, further studies can be made on the difference between the adoption of IFAC standards and AICPA standards in terms of reporting and ethical conduct from the perspective of multinationals that respond financially to jurisdictions that apply these standards distinctly. Also, detailed studies have not been made on emerging market companies but with foreign ownership and administrative headquarters in tax havens. Future research opportunities are in the field of taxation when it is possible to measure the impact of the adoption of new tax regulations in combating unfair and unethical fiscal conduct of large corporations.

CONCLUSION

This chapter has presented some aspects of professional ethics in accounting and taxation, highlighting the issues and controversies that specialists in the field are currently facing. The interests determined by factors such as intensity of competition in a context of crisis or increased pressure on businesses to communicate the „digestible" results, especially from investors and analysts make the information collected by market valuation experts and accountants to determine some interpretation to mitigate the possible effects of creativity. If the purpose of creative accounting is to improve the accounts (or the image created for the company), taking advantage of the weaknesses and deficiencies of accounting regulation, we appreciate that this concept is nothing new, because the principle of accounting options is known for a long time.

Creative accounting is treated in most cases negatively (negative creation), designed to lead to achieving value for intangible assets able to respond to the wishes of managers on the company's financial position and performance. Simultaneous treatment of creative accounting as a tool to achieve the interests of accounting and accounting engineering is based on the accounting policies adopted by a patrimonial entity to produce and communicate information. Accountants who accept the ethic challenge of creative accounting should be aware of the abuse to both the choice of accounting policies, and handling transactions.

Fraudulent practices, both in the accounting and tax area, are certainly in many cases the consequences of unethical professional conduct that affects users of financial information, both internal and external.

From the cases presented in this chapter as well as in the current literature, it can be seen that the adoption of unethical behavior in the accounting or financial field can bring positive, very favorable results in the short term, but it must is aware that these positive results turn into negative effects both at microeconomic and macroeconomic level, sometimes having a huge, devastating negative impact on the whole globe. However, if we look at the other cases in practice, where professional and financial professionals share an ethical professional behavior, we observe the opposite: the short-term outcome is not always favorable, but in the medium and long term there is a positive evolution of results financial and accounting perspective and from an economic perspective. Entities adopting ethical behavior are prone to success and increase the ability to stay on the market.

There are major concerns regarding the development of the educational system regarding professional ethics from the very early age. Also, more and more corporations are training their staff to adopt ethical professional conduct.

From an accounting point of view, unethical conduct can be masked fairly easily through creative accounting practices, in which professional accountants find accounting methods at the law limit so as to diminish the accounting result or present a more favoring the entity they belong to. On the other hand, unethical fiscal conduct is easier to identify, due to the adoption of visible tax optimization models. However, both accounting and tax approaches, in this case, are law-based approaches. Thus, the question arises: are these practices evidence of ethical misconduct?

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KEY TERMS AND DEFINITIONS

Conflict of Interest: A situation where a person/entity has multiple interests that can significantly affect the decision-making process.

Cost: The money form of all material and labor expenses made by the company to produce and market material goods, execution works, and service works.

Education Ethics: It includes a relatively broad range of ethical concerns about education.

Ethical Conduct: A conduct allowed by a code of conduct.

Ethical Misconduct: A conduct which is not allowed by a code of conduct.

Financial Information Users: External—potential investors, state, business partners, internal—employees, managers.

Morality: Set of personal principles which allow a person to distinguish between right and wrong.

Tax Avoidance: The way an entity reduces its taxable income and tax liability.

Tax Evasion: Illegal way an entity uses in order to reduce to completely erase tax liability.

Throughput Accounting: Integrated system based on principles used in management accounting for performance measurement through theory of constraints.

Chapter 9
The Performance and Competitiveness of Romanian Enterprises in the European Economic Area

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ABSTRACT

The scientific approach of the authors' aims at highlighting the performance of the Romanian enterprises, based on the statistical indicators, and their competitiveness in the national and European economic space. Romanian companies are facing a decline in productivity lately, mainly due to a shortage of qualified workforce. Exodus of the skilled labor force towards the European market has led, most of the time, especially among small and medium enterprises, to reducing their activity, decreasing their productivity, and implicitly, to decreasing the profit rate. In this context, the competitiveness of Romanian companies in the European economic space has dropped considerably. Throughout the research, the authors highlight the economic impact due to the use of an unskilled workforce, which led to a low productivity and a decrease in the performance of the enterprises. The research is the results of the analysis of the statistical data, mainly provided by National Institute of Statistics surveys.

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INTRODUCTION

In the current context, knowledge and assessment of enterprise performance has become an essential part of the increase in and improvement of the efficiency and effectiveness of economic activities.

Thus, performance is fundamental in ensuring an enterprise's sustainability. Regarding the definition of performance, it is difficult to express it at enterprise level, due to the fact that all activities performed in the enterprise must be taken into account, as well as the interests of those involved in performing the activities.

Also, in order to assess the performance of economic entities, the performance assessment must be made by means of a balanced multidimensional system, which should take into account both financial and non-financial indicators, and whose aim is to lower the limits of the two categories of indicators.

In the 1980s and at the beginning of the 1990s, several authors emphasized various systems to be used in managing enterprise performance, among them being: (Keegan et al., 1989) with the performance measurement matrix, (Lynch & Cross, 1991) with the performance pyramid, (Fitzgerald et al., 1991) with the results and determinants framework, (Kaplan & Norton, 1992) with the balanced scorecard, and Neely et al. (1995) with the performance measurement process. Later, Neely et al., in the years 2001, 2002 outlined the system called the performance prism.

Nevertheless, in this century, enterprises can no longer be assessed in terms of economic and financial performance alone, it is necessary to integrate the environmental aspects, assessed in terms of what is referred to as global performance, determined by aggregating economic, social and environmental performances (Pintea & Achim, 2010).

In the context of a competitive market, ensuring competitiveness at enterprise level is a major strategic objective. We cannot envisage the performance of a competitive activity without designing and implementing a strategy which involves mutations at the level of enterprise structure, activity and management. In this context, regardless of the enterprises' size and domain of activity, their competitiveness is shown is the quality of the strategies they adopt and implement.

The research includes a synthesis of the literature in the field of the research topic, where the authors present standpoints of specialists in economics regarding the concepts related to performance and competitiveness at enterprise level. Going forward, a statistical analysis is presented, in which the performance and competitiveness of Romanian enterprises are outlined in the European context. Also, a series of queries is identified, which will be the goal of future research. The final part of this research presents several conclusions resulting from the approached topic as well as several action paths.

LITERATURE REVIEW

The changes occurring in the economic environment in the past two decades have made a significant contribution to approaching enterprise performance, thus leading to adjusting numerous theories on the concept of performance to the new economic realities.

In this context, many of the specialists in economics deal with performance by connecting it with the objectives the enterprise aims at and with the level of achieving them, others consider it a measurement of the value created by the enterprise, and others consider performance in terms of productivity and effectiveness of the activity.

Performance at enterprise level is what contributed to improving the cost-value relationship, but not what contributes to decreasing the cost or to increasing the value. In the author's opinion (Niculescu, 1997), "the enterprise is a high-performer if it is both productive and effective at the same time".

Performance = productivity + effectiveness

where productivity is the ratio of achieved results to the means employed in obtaining them, and effectiveness is the ratio of achieved results to expected results. Therefore, performance is the achievement of set objectives.

Sometimes, the concept of performance can be mistaken for productivity. Yet, performance is a wider concept which emphasises both the economic and the operational aspects of an economic entity. Moreover, performance takes excellence into account and "incorporates profitability and productivity among other non-cost factors, such as quality, speed, delivery and flexibility" (Tangen, 2005).

Yet, in the context of sustainable economic growth, the enterprise's performance appears to emphasize the generation of value for shareholders, social responsibility and, at the same time, the contribution made by the enterprise to environment protection.

In time, the concept of performance gained various connotations such as: profitability, productivity, competitiveness, etc.

One of the authors who researched the concept of performance (Dubois, 1979) proposes that the assessment of enterprise performance be made by means of certain financial concepts, namely: profitability, productivity, indebtedness, and solvency.

Other authors (Dess & Robinson, 1984) emphasize that profitability and growth are merely distinct aspects of enterprise performance and that they do not have full informative power, hence financial performance also envisages other aspects.

This idea is also sustained by authors (Rawley and Lipson, 1985) who emphasize that performance assessment should also include assessing the market value; they studied the relationship between profitability and market value, emphasizing a correlation among some of the factors. Subsequently, authors (Venkatraman and

Ramanujam, 1986) separate the concepts of organizational efficiency, business performance, operational performance and financial performance. The two authors clarify that enterprise performance includes financial performance "which is indicative of achieving financial objectives, and operational performance which aims at achieving the organizational goals".

Several authors, among whom (Tannenbaum & Shimdt, 2009), emphasize that performance is granted by the degree to which the organization, using certain means and resources, can achieve the set objectives. Simultaneously, the authors showed that, at the level of an economic organization, performance can be assessed by comparison to the level of goal achievement, taking into account work productivity, net profit, the way in which the organization can achieve its mission, while its success can be maintained or increased.

In this context, financial performance is assessed by means of financial indicators, and operational performance is assessed based on non-financial indicators.

For this reason, several authors sustain the need to use other concepts as well in the analysis of enterprise performance, such as profitability, which is most often considered an aspect of financial performance.

As a matter of fact, profitability allows for a partial assessment of the enterprise's financial performance. In the author's opinion (Nedelcu, 2014), profit and profitability rates do not provide a complete image of the enterprise's financial performance, thus a profitable enterprise can be unable to perform its duties, resorting to other aspects of performance such as cash flow, which ensures the convergence between profitability and financial balance.

In the author's opinion (Tache, 2007), "the enterprise's performance is correctly assessed by means of value indicators, as they provide the most complete information on the enterprise's success, contributing to the increase in the quality of the decision-making process".

Alternatively (Niculescu & Lavalette, 1999), performance can be expressed as "a state of enterprise competitiveness achieved through a level of effectiveness and productivity which ensure its' sustainable presence on the market".

From a traditional perspective, performance measurement was designed and managed taking into account the accounting and finance functions within organizations, which is what made organizations manage most of their projects "on the basis of outdated costs and lagging finance-oriented measurements" (Anderson & McAdam, 2004). Yet, we must consider that, traditionally, performance measurement was based on data from financial information. But financial measurements are of historical nature, the results and consequences of past actions (Kaplan & Norton, 2001). As a matter of fact, two main objectives are aimed at in performance measurement (Grünberg, 2004):

- Connecting the enterprise's objective to improvement;
- Setting targets for activity improvement.

In the authors' opinion (Haapasalo et al., 2006), performance measurement indicates "an increased visibility of a task's quality and progress and helps justify, manage and assess the programs aimed at improving quality and productivity at operations' level".

Another author (Neely et al., 1995) defines performance measurement as "a set of measurements used in quantifying the efficiency and effectiveness of actions."

In conclusion, enterprise performance envisages knowing the enterprise's current objectives, strategies and policies; the way in which economic objectives set for enterprises to achieve in a time interval are achieved; the productivity level of production factors, mainly of labour productivity; the achieved performances quantified by means of economic and financial indicators.

Yet, an enterprise can be efficient but not also competitive on the market. In this situation, we cannot speak of performance at global level, but there can be competitiveness at enterprise level, yet we cannot speak of efficiency as well, which leads us again to lack of performance. (Rusu, 1998).

Otherwise, in an economy where competition is more and more fierce, competitiveness becomes a sine qua non for the operation of enterprises which manufacture goods or provide services. Thus, we can define competitiveness as the enterprise's capacity to cope with competitors on the market.

In the author's perspective (Colasse, 2008), competitiveness is "the enterprise's ability to cope with opportunities which arise, as well as with the events which are threatening it, such as a recession in its domain or activity".

Yet, from a financial perspective, the enterprise's competitiveness depends on its capacity to generate benefits and, at the same time, on its capacity to obtain cash-flow.

Competitiveness in general (Talmaciu & Mihai, 2005) is a complex phenomenon, which refers to a nation's capacity, by comparison to others, to create and manage an economic, social and political environment which leads to the accelerated generation of added values.

Porter (1990) stated: "the only complete indicator which defines the concept of competitiveness at national level is national productivity".

The same author also considers that "the competitive edge is the key factor for an enterprise to achieve performance on competitive markets and it cannot be understood if we consider the enterprise as a whole".

Yet, an enterprise's competitiveness can be achieved by means of an offensive development strategy, defined in the context of knowing the economic and social environment.

Yet, a major role in the strategy is played by quality which, on the one hand, indicates a strategy of differentiating the enterprise's products or services, and, on the other hand, indicates a means by which the enterprise create competitive edges.

In this context, ensuring the long-term competitiveness of Romanian enterprises on domestic and international markets can be emphasized by means of using strategies based on quality, in which the central element must be the customer with its needs, wishes and preferences. (Talmaciu & Mihai, 2005). In another author's opinion (Radu, 2013), competitiveness depends on managerial skill and on the proper operation of entperise components.

In a competitiveness report, it is defined as being "the ability to manufacture goods and provide services which pass the test of the international market, but which, at the same time, maintain high and sustainable revenue levels". (Global Competition: The New Reality. Report on the President's Commission on Industrial Competitiveness, 1985)

In one of his papers (Croitoru, 2011) the author emphasizes that "the international competitiveness of a national economy depends in a decisive manner on the enterprises' strategy, structure and on the competition's marketing, on the way in which these are organized and managed, on the targeted objectives and on the implemented strategies".

ANALYSIS OF THE PERFORMANCE AND COMPETITIVENESS OF ROMANIAN ENTERPRISES

In addition to country-specific problems around the world, such as those linked to maintaining high productivity, innovation capacity and moderate fiscal pressure, there are common problems affecting many EU Member States. These include access to finance/insufficient funding, access to markets, high-energy prices and investment gaps. The authors of these papers want to emphasize the importance of the activity of enterprises as a cornerstone in the national economy. Member States with a developed and diversified economy, as well as a strong industrial base, have done much better over time, including passing over periods of crisis. However, in order to build a strong economy, it must be established deep roots in a good land: high skills of the employment, investment in innovation and research, etc. In Romania, a real progress has already been made in the business environment with regard to exports and the sustainability of the national economy, yet there remain many unsettled issues. An efficient public administration is another essential needed covariate of economic performance in jobs, growth and promoting competitiveness. You will find a deeper analysis of these aspects in this paper.

The most important characteristics of Romanian business demography[1] consists in fact that the majority of enterprises registered in the Statistical Registry (REGIS) are small and medium-sized businesses. 90% of them have few employees (under 9 persons), approximately 9% of businesses have between 10 and 49 employees, and only 0.4% of businesses are those with over 250 employees. SMEs represent the most dynamic sector of Romanian and European economy, being the main source of entrepreneurial jobs and know-how, as well as a social stability trigger.

The financial crisis started in 2008 affected the population of active enterprises in Romania, the number of units decreasing from 555 thousands to 452 thousands in 2011. In 2016, the number of active enterprises was 528 thousands, namely below pre-crisis level.

Gross investment in tangible goods is other indicator which reflects the performance and competitiveness of the enterprises. This indicator is collected within the frame of the Structural Business Statistics (SBS), as required in Commission Regulation N° 250/2009. We notice that the level of investment in tangible goods plummeted after the crisis began, (RON 104,442 bn in 2009 compared to RON 148,349 bn in 2008), then having a fluctuating evolution until the end of analyzed interval, which can also be explained by the uncertainties and risks of the business environment (Table1). It must be emphasized that many enterprises preferred to lease their tangible goods in this interval, instead of purchasing them directly.

It is already well-known that the increase in productivity is one of the most important forces of long-term economic growth. Understanding the factors that drive labor productivity growth reflects the use of the best design techniques for future economic and social policies. Innovation and productivity growth are supported by investment in general and R&D investment in particular. In Romania, the R&D expenditures increased almost exponentially in the last few years (2013-2016), increasing on an average of 1.13 times, due to accessing European funds through which important subsidies could be received.

Table 1. Gross investment in tangible goods in Romania during 2008-2016, by number of employees (millions of lei)

No. of employees	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	**148349**	**104442**	**99663**	**149858**	**132424**	**148349**	**104442**	**99663**	**149858**
0-9	38412	18337	23468	21051	31456	38412	18337	23468	21051
10-49	26214	19363	18514	20245	20140	26214	19363	18514	20245
50-249	31006	21523	19094	25273	21287	31006	21523	19094	25273
> 250	52717	45219	38587	83289	59541	52717	45219	38587	83289

Source: TEMPO database, INS, 2018

The R&D sector may be an essential trigger for the development of a modern economy, through the contributions it may make to increasing economic efficiency, labor productivity, standard of living and quality of life. In future, we believe that increased support from the authorities in the form of fiscal benefits or facilities could lead to stimulating investments in research and development. Also, a legislatively more predictable business environment would encourage such investments. By economic activities, the highest level of R&D expenditure is spent on industry, and the lowest in the constructions sector.

The Gross profit of enterprises in Romania met a minimum in 2011 as a result of financial crisis (Table 2). Since then, the value of that indicator has started to grow, from 4,5 to 5,3 millions lei in 2016, yet without achieving the level recorded in 2008 (lei 5.55 mil.).

THE EUROPEAN CONTEXT

Romania is still part of the cluster of "catching-up" countries (Estonia, Czech Republic, Latvia, Lithuania, Slovakia, Hungary, Croatia, Poland, Romania and Bulgaria), facing important challenges in many areas. For some indicators that reflect the competitiveness of enterprises, these countries are thought to have moderate performance.

An indicator which provides interesting information is "***Nominal labor productivity per person employed".***

Unfortunately, although the level productivity of salary-based labor is rising in Romania in the analyzed interval, (from 40.2% of the European average in 2006 to 65.3% in 2017) our country still fills the penultimate position in Europe for this indicator (Bulgaria fills the last position, with 45.6% of the European average).

Table 2. Gross profit of enterprises in Romania during 2008-2016, by number of employees (thousands lei - current prices)

No. of employees	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	**554967**	**541696**	**491805**	**452010**	**472187**	**485082**	**507440**	**513850**	**527792**
0-9	495019	485714	438400	394059	413783	426775	449502	455547	468897
10-49	48131	45791	43805	47737	48215	48287	47890	48005	48373
50-249	9939	8577	8047	8605	8549	8414	8374	8583	8791
> 250	1878	1614	1553	1609	1640	1606	1674	1715	1731

Source: TEMPO database, INS, 2018

Romania recovered 2 percentiles/on average/per year of the gap from the European average in the past 12 years, but there is still room for substantial improvement. There was a slight decrease in 2010, which can be explained by the effects of economic crisis, but then the upward trend was resumed intensely. By contrast, in the same interval, Greece decreased from 100.6% of the European average in 2006 to 79.6% in 2017. Among the countries in the „catching-up" group, only Latvia and Lithuania had intense rhythms of recovering the labor productivity gap, in this interval, whereas other countries such as Hungary or Slovakia recorded fluctuating evolutions or even a slight decrease (Table 3).

FURTHER RESEARCH

Further research to provide additional evidence on Romanian's enterprises performance could address the following questions:

- What factors influence enterprises choices to invest?
- Are investments affect firm productivity?
- What is the impact of investment on firms engagement in innovation and exporting?

CONCLUSION

Enterprises are the driving force of a country's economic growth, and their performance is the basis for the competitiveness of the entire economy. Improving the enterprises' access to factors, their participation on the European single market, their investments in streamlining the industrial base, while observing the sustainable development principles, represents a key condition to ensuring the competitive operation of the Romanian economy.

Yet, we must emphasize that, to a large extent, small and medium-sized enterprises in Romania are faced with major issues, and they are not ready enough to achieve their mission as driving force of the economy, so that lack of competitiveness is mostly caused by situations in which enterprises cannot meet the European standards, which is triggered by their inability to access funding sources meant to be invested in new technologies and in implementing the quality system, or to benefit from consultancy services which provide them adequate market direction.

Table 3. Nominal labor productivity per person employed (ESA 2010) Index (EU28 = 100)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
EU (28 countries)	100	100	100	100	100	100	100	100	100	100	100	100
Bulgaria	36.1	37.6	39.3	39.4	41.2	42.1	43.5	42.8	43.8	44.1	45.3	45.6
Czech Republic	73.9	76.6	77.6	79	77	77.3	76	76.5	79	79.6	79.8	80.5
Denmark	107.9	106	107.4	109.4	115	114.4	114.2	115	115.1	114.2	111.8	113.7
Germany	107.8	107.8	106.7	104	105	106.3	105.1	104.5	106.4	106.1	106.3	106.2
Estonia	61.2	66.4	65.9	66.5	70.5	71.9	73.1	73.1	74.7	71.8	73.7	74.7
Ireland	139.4	139.2	130.3	134.8	141.6	144.3	146.7	142.7	146.4	188.4	185.4	189.2
Greece	100.6	97.9	98.3	97.9	89.4	85.4	85.8	86.8	86.1	83.1	80.9	79.6
Spain	100.6	100.4	100.7	105.3	101.8	101.1	102.9	103.2	103.2	101.9	101.5	101.6
France	117.5	117.2	116.3	117.3	116.9	116.6	115	116.3	115.7	115.2	114.8	115.4
Croatia	67.3	69.3	70.4	68.4	67.2	70.1	72.3	73.4	70.6	70.1	71.2	71.7
Italy	114	113.9	114.7	114.7	112.7	112	109.9	108.5	107.1	106.1	107.3	106.3
Cyprus	91.4	93.8	94.8	95.1	91.4	89.8	88.5	86.6	84.9	84.8	84.5	84.3
Latvia	51.7	54.4	56	56	58.7	61.3	62.8	62.3	64.4	63.7	64.8	67.2
Lithuania	57.7	61.9	64.9	61.1	67.1	71.2	72.9	74	74.5	73.2	72	74.9
Luxembourg	174.7	175.3	169.2	162.5	162.3	166.1	161.8	163.1	169.6	167.9	162.9	160.6
Hungary	66.6	66.1	70.4	72.3	72.9	74	72.7	73	71	69.7	67.7	68
Malta	92.9	93.5	93	93.8	94.6	91.1	90.2	89.5	91	94.9	95.2	95.9
Netherlands	119.1	118.9	119.5	116.8	114.6	113.3	113	114.9	113	112.3	111.4	111.1
Austria	119.6	118.1	117.4	117.6	115.3	115.6	117.5	116.8	116.3	117.5	116.5	117
Poland	60.3	61.2	61.9	65.2	70	72.6	73.9	73.7	73.5	73.9	74	75.6
Portugal	77.7	77.6	77.3	79.3	79.7	76.3	76.6	79.5	78.7	78.1	77.9	75.9
Romania	40.2	44.6	51.2	51.3	50.6	51.5	55.6	56	56.5	58.5	61.9	65.3
Slovenia	83	82.8	83.5	79.9	79.4	80.6	80	80.3	81.2	80.5	80.5	81
Slovakia	72	75.8	79.2	79	83.4	81.4	82.3	83.5	83.8	82.5	81.6	81.1
Finland	111.7	115.3	115.7	113.2	112.5	112.4	109.3	108.1	107.3	107.6	108.7	108.8
Sweden	116.5	119.1	118.1	116.1	116.7	116.2	116.2	113.9	113.2	114.1	112.9	112.2
United Kingdom	109.3	107.2	106.1	104.1	104	102.2	102.6	102.3	102	101.5	101.3	99.8

Source: https://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=tec00116

In other words, Romania is faced with competitiveness gaps by comparison with western and central European countries. These gaps apply to all elements which determine competitive capacity. Ultimately, these are found in a low productivity, which defines the competitiveness issue in Romanian enterprises.

The high exodus of Romanian skilled labor abroad, combined most often with poor training in certain domains, caused the performance and competitiveness of Romanian enterprises to become an issue for Romania, in the context in which the country faces a strong European competitive market.

In this context, to increase the Romanian economy's competitiveness, it is strictly necessary to ensure the development of a stable and dynamic e-business environment, by increasing the number and degree of using e-business opportunities by enterprises in general, and by SMEs in particular.

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ENDNOTE

1 Business demography statistics imply the study of the births and deaths of enterprises, the evolution of the newly created enterprises and the workforce involved in these events. Statistical data on enterprise demographics are relevant to economic analyzes and are obtained by introducing a new field of statistical research. Since 2000, the National Institute of Statistics has participated in the project "Business Demography", a project led by Eurostat, which included the majority of EU Member States and candidate countries in the year 2000 as well as the EFTA countries. Source: http://www.insse.ro/cms/sites/default/files/field/publicatii/demografia_intreprinderilor_2016_0.pdf).

APPENDIX

1. Annex – Definitions of indicators (according to TEMPO metadata)

Population of active enterprises or the number of enterprises represents the enterprises (business demography) registered in the Statistical Registry (REGIS) and includes the active units, at least during part of the reference period.
The average number of employees represents a simple arithmetic mean (calculated by dividing the total number of daily employees of the respective year in the total number of calendar days) of those who have had a labor contract and received remuneration in the form of wages.
Gross investment in tangible goods represents investment in all tangible goods over the reference period. New fixed assets and existing fixed assets are included, whether purchased from third parties, acquired under a finance lease (ie the right to use a durable good for a rental payment over a predetermined and relative period or are produced for their own use (ie capitalized tangible fixed assets), which have a service life longer than one year, including non-produced tangible goods such as land. The useful life of a good which can be capitalized may be increased in line with the company's accounting practices, where such practices require a period of use greater than the one-year threshold indicated above.
Net investment represents the expense for construction, installation and assembly, for the purchase of equipment and means of transport, other expenses for the creation of new fixed assets, for the development, modernization and rehabilitation of those owned, as well as the value of services related to the transfer of ownership of fixed assets owned land (notary fees, commissions, transport, loading / unloading costs, etc.)
Number of enterprise births - include commercial companies and individual entrepreneurs (individuals, individual enterprises, family businesses, liberal professions) that carry out non-agricultural activities created within a certain period of time. The notion "new creation" refers to the inclusion of an enterprise in the enterprise's statistical register, which is updated monthly on the basis of the tax register.
The expenditures incurred in units with R&D activity refer to the current and capital expenditures in the sphere of activity of the respective units. Destination costs are:

- Current payments made during a period within the units, representing the labor cost, materials and other current expenses;
- Capital (investments) - payments made during a period for the construction works, the purchase of apparatus, instruments, machines and equipment or other expenses of this kind intended to contribute to the increase of the volume of fixed assets.

Turnover is the amount of revenue from the sale of goods, sales of goods, execution of works and services, less rebates, draws and other discounts to customers.

Gross value added - at factor cost is the amount of wages and other items related to the cost of labor factors, profit, operating grants, fixed capital depreciation, deducting production taxes.

The gross operating surplus is the surplus generated by the work done after the workforce has been rewarded. It can be calculated as the difference between value added and staff costs.

The gross result of the exercise is the difference between the amount of operating income, the financial and extraordinary expenses and the amount of operating, financial and extraordinary expenses. The positive difference is the profit, and the negative is the loss.

Labor productivity per employed person was calculated as a ratio between the gross added value and the number of people employed.

Chapter 10
The Decision Process Based on the Accounting Information System

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ABSTRACT

Historical cost is the main basis for assessing tangible assets in the annual financial statements. However, the accounting regulations applicable in Romania allow the valuation of tangible investments at fair value determined by authorized persons. Once chosen, this option must be applied consistently for the entire class of tangible assets subject to revaluation. By January 1, 2015, national regulations did not allow the return from the fair value method to historical cost method. The chapter aims to present both the accounting and tax treatments to be adopted when choosing the fair value, as well as those related to returning to the cost-based approach.

INTRODUCTION

In the years immediately following the fall of communism, Romania has seen an increase of companies from the private sector. At the same time, the accentuated growth of consumer prices led to the alteration of the quality of accounting information from the balance sheets expressed in costs (Albu et al., 2011). In this case, the amortization of fixed assets became highly inferior to the replacement value, which led to the disinvestment of these companies (Cameran, Campa & Pettinicchio, 2014).

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For the limitation of inflationist effects, the reevaluation of fixed assets had in Romania either a compulsory nature, or an optional one (Măciucă, Hlaciuc & Ursache, 2015). From the perspective of accounting regulations, the reevaluation was accepted as an alternative treatment, the entities having the possibility to use either the method based on the historical cost of intangible assets, or the method based on their fair value (reevaluated).

Producers and users of financial statements consider that in the measurement and presentation of accounting information, the most widely used is the historical cost, although it has some weaknesses (Gong & Wang, 2016; Istrate, 2014). This is usually combined with other bases of evaluation (Jones & Finley, 2011). Moreover, the tendency is to use current cost accounting in response to failure based on historical cost model to solve problems connected with non-cash effect of changes in asset prices (Barker & McGeachin, 2013; Zeff, 2007).

On such inactive markets, reevaluation is not possible and for this reason the cost model is used to account, where the accounting value is the historical cost reduced by accumulated depreciation and loss of value due to depreciation (Muller & Riedl, 2002).

The major objective of financial accounting, obtaining an accurate picture can be assured by fair value (Nobes, 2015). Applying this concept of utility requires shaping, techniques for obtaining knowledge and provides better quality information than the historical cost accounting and adds safety to users as they can avoid the negative aspects related to assessing the profitability and solvency of an entity property (Forbes, Hudson, Skerratt, Soufian, 2015).

If the carrying amount of an intangible asset is reduced as a result of revaluation, the decrease should be recognized as an expense (Cotter & Richardson, 2002). However, a revaluation loss from revaluation surplus directly reduced accordingly, since the decrease does not exceed the corresponding revaluation surplus recorded in the same asset (Aharony, Barniv & Falk, 2010). Cumulative revaluation surplus included in equity may be transferred directly to retained earnings when the surplus may be made to withdraw from use or disposal of assets (Lee & Kim, 2010). Part of this surplus may be realized as the asset is used by society in such a case, the surplus is the difference between the depreciation that should be recognized on the basis of historical cost of assets. The transfer from revaluation surplus to retained earnings is not made through income statement (Gunny, 2010).

So far, theoretical and normative approaches regarding intangible asset, in general, were based on theory (Buculescu & Velicescu, 2014; Oz & Yelkenci. 2018). At present, the theory is not so much accepted and there is more and more discussion on a conceptual reorientation of accounting evaluation which could be a prerequisite for the establishment of an improved valuation model (Kouki, 2018).

Abandoning the principle of historical cost is encouraged by the application of new evaluation methods that best meet the needs of users of financial statements (Alzola, 2017). Other users oppose restatements as outlined above, because they lead to a loss of credibility of accounting information (Atwood, Drake, Myers & Myers, 2011; Missonier-Piera, 2007). IASC is not far from this second perspective, because as we have seen, the effects of inflation finding are not required only when it reached very high levels (). The international conceptual framework leaves a possibility to keep accounting in current values (Fiume & Vignini, 2013).

However, returning to the restatement of accounts under intangible assets in excess of hyperinflationary attorney presents advantages, in principle, inconvenience caused probably by higher costs from further processing (Choi, Pae, Park & Song, 2013; Wilford, 2016).

The auditor should consider also whether individual differences of intangible assets were accepted as reasonable or oriented in one direction as cumulated can have a significant effect on the financial statements. In such circumstances, the auditor must assess the intangible assets accounting estimates taken as a whole (Zhong & Li, 2017). Therefore, it can be said that accounting estimate on intangible assets is one of the challenges of international accounting and auditing in the context of convergence (André, 2017).

The article will present an analysis of the main accounting and tax treatments related to the reevaluation of tangible assets at the moment of adoption of the fair value, but also at the moment of return to the method based on the historical cost.

BACKGROUND

In the early 90s, an overwhelming majority of enterprises were running on state capital, the Law 15/1990 allowing their reorganization as autonomous companies and trading companies. The law was followed by the issuance of Law 31/1990 regarding trading companies, which created the legal framework of organization and functioning of most private entities in Romania. The legal entities established for a lucrative purpose were paying benefit taxes (see stipulations of the Decree of Law 54/1990), and since 1991 these became tax on profit.

To be noted that until the appearance of the Fiscal Code applicable since the 1st of January 2004, the constitutive elements of tax on profit met remarkable changes (for example, the quota of tax on profit lowered gradually from a maximum level of 77% to an intermediate level of 45%, respectively 38%, to the nowadays existing level of 16%).

Likewise, impost and local taxes are due for owned buildings, the taxing quota being very small (Ahmed, Neel & Wang, 2013). On a galloping inflation background, local budgets' revenues became insufficient, because the taxable value was dependent on the historical cost of buildings (Doukakis, 2014). Moreover, the increase of consumer prices led to the distortion of the real value of equity / net assets, which determined the fiscal authorities in Romania to issue reevaluation norms for buildings and land (Barlev, Fried, Haddad & Livnat, 2007).

The reevaluation of tangible assets had either a compulsory nature (e.g. HG 945/1990, HG 26/1992, HG 500/1994), or an optional one (e.g. HG 983/1998, HG 403/2000 or HG 1553/2003). After the 1st of January 2004, on the background of price stabilization, the fiscal reevaluations performed on the base of certain special normative acts were given up, and entities were allowed to adopt the model of fair value of tangible assets through their own accounting policies (Palea, 2013). Moreover, the fair value used to replace the historical cost was used in order to stabilize the impost for buildings, fiscal regulations introducing tax rates a lot bigger if taxpayers were not reevaluating these estates (Cheng & Thomas, 2006).

THE EVOLUTION OF ACCOUNTING AND TAX TREATMENTS CONCERNING REEVALUATIONS OF TANGIBLE ASSETS IN ROMANIA

The accounting regulations are structured in two periods, one for the reevaluations done during 1990 – 2000, and the other valid for the reevaluations done after 2001.

During the period 1990 – 2000 the characteristic of these reevaluations was that they were addressing state units and autonomous companies, and the differences from said reevaluation were positive, on the background of an increasing inflation during the first ten years of capitalism. Another characteristic was that reevaluations were done by inventory committees within economic units.

State economic units were forced to perform the first patrimony reevaluation by the HG 945/1990 Law, through constituting a Committee of inventory and reevaluation of patrimony, made up of the director, chief engineer, chief accountant, technical and economic staff and the representative of the legal office, committee approved by the board of directors, to which a delegate of the territorial financial body also takes part of.

At the level of the Romanian Government, it had the Central Commission for the Inventory and Reevaluation of the State Economic Units.

The object of the reevaluation was given by the productive and unproductive fixed assets from the main activity, the auxiliary, and the annex ones, all under the administration of the state economic units (Albu et al., 2011).

The goal of the reevaluation was given by the determination of the remaining updated value of each existing fixed fund, on the 30th of June 1990 and by the entry of the balance sheet drafted for the 31st of December 1990.

As a general rule, the remaining updated value of a fixed fund was established taking into consideration: the inventory value of the fixed fund; the replacement value of the fixed fund (usually determined according to the production or delivery prices in force on the 30th of June 1990) and the degree of physical wear estimated for the 30th of June 1990 (determined taking into consideration the service time consumed and the service time left).

If the replacement value was not identifiable, then more methods were allowed, out of which we mention the identification method, the assimilation method or the correlation method.

By exception, there was also allowed the method of production and delivery prices update indices, which were determined based on the prices modification during 1970 – 1990, according to normative acts.

The differences that resulted raised the social capital of state units, the declaration at the Trade Register being also compulsory.

Through Art. 4 of HG 26/1992 it was established that the Minister of Economy and Finances was to elaborate reevaluation norms for fixed assets, at the level of prices from the economy charged at the end of the first trimester in 1992.

This action established the starting point necessary in the auctioning operations provided by the law for selling assets and fixed assets, and also in the reconsideration of economic agents' social capital. There were subjected to the reevaluation action all fixed assets of economic agents who had a state capital, registered in the balance sheet ended on the 31st of December 1991, and also the inventory results, whilst respecting the legal stipulations in force.

Each state unit was forced to establish the remaining updated value and the differences which the social capital was to raise with. Procedurally, more steps had to be taken, of which we mention:

Step 1: General inventory of the patrimony;

Step 2: Establishment of the replacement value for existing fixed assets on the 31st of December 1991. The replacement value was different according to the nature of the fixed assets;

For example, for buildings and special constructions, the value was established according to the actualization indices differentiated by execution period, putting into function period etc.; for machinery and installations that require fitting, the replacement value was given either by the acquisition prices in force on the 31st of March 1992, by the external prices converted to a 180RON / 1$ exchange rate, along with all the other involved costs, or by using one of the three methods (identification / assimilation / correlation) submitted in HG 945/1990.

Step 3: Establishment of the remaining updated value, taking into consideration he degree of physical wear and the recalculated inventory value;

For example, for an agricultural building purchased in 1980, with an inventory value of 1mil.RON, it is known that at the date of the reevaluation, the degree of use is 45% and the update index is 14,30.

Under these circumstances, the existing amortization is of 450.000 RON (historical cost of 1.000.000 RON * 45% degree of use).

The replacement value is 14.300.000RON (1.000.000 RON * 14.30).
The recalculated amortization is 6.435.000 RON (14.300.000 RON * 45%).
The recalculated inventory value is 8.315.000RON (14.300.000RON + 450.000 RON – 6.435.000 RON).
Remaining updated value is 7.865.000RON (8.315.000 RON – 450.000 RON).

In the case of patrimony and social capital changes, the situation is presented in Table 1.

Whatever the method used, the result obtained has to correspond to the balance sheet correlation: Remaining value = Inventory value – Amortization before reevaluation.

After reevaluation, the remaining updated value reflected in the patrimony and social capital of the economic agents:

Account 110 – “Amortization of fixed assets” remains with a credit balance of 450.000 RON.

By the law HG 500/1994, the compulsoriness of reevaluation done by trading companies with full or partial state capital, and also by autonomous companies has been established. As a novelty, the option of executing a reevaluation by trading companies with private capital was introduced.

Table 1. The situation of patrimony and social capital

Name	Situation before reevaluation	Situation after reevaluation	Differences with which the social capital will raise
Fixed assets	1.000.000	8.315.000	+7.315.000
Cumulated amortization	450.000	450.000	-
Remaining value	550.000	7.865.000	+7.315.000

The reevaluation of tangible assets was registered in accountancy by the end of 1994, taking into consideration the existing assets in the patrimony on the 31st of December 1993, (ii) the coefficients determined according to price indices on the 30th of June 1994 and the degree of average use of industrial production capacities in 1993. The tangible assets that were removed after the 1st of January 1994, the ones that were introduced after the 1st of April 1994 and the ones completely amortized on the 31st of December 1993, were not subjected to reevaluation.

At the end of the reevaluation, the economic agents determined and registered each the differences resulted in social capital, and also in the corresponding tangible assets accounts, after they were approved by the general meeting of shareholders. The expense related to the new scale of amortization of tangible assets is registered starting with the 1st of January 1995.

As novelty, there were created distinct accounts for the increase of equity (1017 "Social capital resulted from the reevaluation of tangible assets" or 1018 "Administration's own patrimony resulted from the reevaluation of tangible assets"), respectively distinct accounts for the registration of differences resulted from the reevaluation (2111.1 "Differences from land reevaluation" or 212.10 "Differences from fixed assets reevaluation").

The principles of determination of differences resulted from reevaluations remain the same as the ones from previous reevaluations, even if the relationship of determination of the remaining updated value changes (Deaconu & Cuzdriorean, 2016). If the results of reevaluations are negative differences, then the updated value of said fixed assets will not be smaller than the one registered in accountancy.

A novelty that appeared through HG 983/1998 was that trading companies, whatever the form of proprietorship, autonomous companies, national research institutes and other categories of economic agents will act only when it comes to the reevaluation of buildings, special constructions and land, but also to the reevaluation of tangible fixed assets like buildings and special constructions, existing in their patrimony on the 30th of June 1998.

The results of reevaluation of each assets category will be contained in the balance sheet done on the 31st of December 1998, and the amortization of reevaluated tangible assets is recalculated starting with the 1st of January 1999. For the first time in the history of reevaluations in Romania, the initial entry value and also the cumulated amortization are updated and registered separately. Another novelty is the introduction in the General accounts plan of own capital accounts 105 (e.g. account 105.01 "Differences from land reevaluation" or account 105.03 "Differences from building reevaluation").

In the case of assets, the difference is registered on the 31st of December 1998 in the assets accounts, according to their characteristics (e.g. account 2121.1 "Differences from building reevaluation"). At the beginning of 1999, these accounts were closed by the debit of the corresponding tangible assets accounts.

After, through HG 95/1999, the stipulations referring to the compulsoriness of executing a reevaluation by the economic entities found in HG 983/1998 are corrected, by introducing the option "can execute the reevaluation". Also, if the annual increase of the inflation index determined by the National Committee of Statistics exceeds 5%, the tangible assets could have been reevaluated annually.

In the end, through HG 403/2000 the principles provided in HG 983/1998 are maintained, but the inventory committee will execute reevaluations for all existing tangible assets (buildings, land, equipment, machinery, furniture etc.).

Moreover, we go back to the determination and registration of the amortization related to the degree to which the fixed assets have not been used. The update index is determined starting from the inflation rate communicated by the National Committee of Statistics for the interval between the reference date of the last registered reevaluation in accountancy and the 31st of December 1999.

Concerning the accounting regulations, we mention Rule 704/1993 which mentioned the possibility of fixed assets evaluation at their entry, based on the value resulted after a reevaluation, and which briefly specified the accounting treatment referring to the formation and utilization of positive differences from said reevaluation. It wasn't until the end of 1999, when, through the Order 480/1999, the Accounting regulations harmonized with the 6th Directive of European Economic Communities and with the International Accounting Standards were approved. This Order was applied for the financial situations of the year 1999 by a significant sample of trading companies rated at the Stock Exchange and by enterprises of national interest. It was mentioned for the first time the alternative evaluation treatment for tangible assets. However, the plus or the minus resulted from the reevaluation of whichever asset has to reflect in the debit or credit of the account "Reevaluation reserves".

After the 1st of January 2001, there was only one more normative act that regulated the actual way of reevaluation of tangible assets, and this was HG 1553 from the 18th of December 2003, regarding the reevaluation of tangible assets and the establishment of the entry value of fixed assets. Afterwards, only accounting regulations were the ones that established the conditions and accounting treatments related to the reevaluation of tangible assets.

Going back to HG 1553/2003, economic entities had the possibility to execute reevaluations of the tangible assets existing in their own patrimony on the 31st of December 2003. The reevaluation of tangible assets is done with an eye to the determination of their fair value, taking into consideration inflation, the good's utility, its condition, and the market price, when the accounting value is significantly different than the fair one.

As novelty, the rule according to which the reevaluation of tangible assets is done by authorized evaluators was introduced. Still, the possibility to execute the reevaluation by the reevaluation committee, composed only of specialists with technical training in said area, that were able to judge the condition, respectively the degree of physical and moral wear of inventoried goods that were submitted to reevaluation, their utility or market value.

Another novelty is related to the fact that the way of accounting is not provided anymore in the normative act emitted by the Romanian Government, because the accounting regulations published right after the year 2000 contain stipulations taken from the international standard IAS 16 “Tangible assets”.

Here we refer to the Order 94/2001 aimed at the approval of Accounting regulations harmonized with the 6th Directive of European Economic Committees and with the International Accounting Standards and to the Order 306/2002 aimed at the approval of Simplified Accounting regulations harmonized with the European directives, which provide the accounting treatment that has to be adopted in case of reevaluations executed at a fair value.

The surplus from the reevaluation included in equity can be directly transferred into the result reported when said surplus is made. It is considered that the whole surplus is made during cassation or during the disposal of the asset. However, part of the surplus can be made as the asset is being used by the enterprise; in this case, the value of the surplus is the difference between the calculated amortization based on the reevaluated accounting value and the value of the amortization calculated based on the initial cost of the asset. The transfer of the surplus from the reevaluation in the reported result is not done through the loss and profit account.

Through the Order 94/2001 the accounts 1058 “Reserves from reevaluations arranged through normative acts” and 1175 “The reported result representing the surplus from reserves from reevaluations” were introduced, while through the Order 306/2002 the accounts 105 “Reserves from reevaluations” and 1068 “Other reserves” were introduced.

In the two accounting regulations there are used the same accounts for the reflection of expenses, the account 6813 “Exploitation expenses regarding provisions for assets depreciation”, respectively of revenues, the account 7813 “Revenues from the provisions for assets depreciation”.

Through the Order 1752/2005, it is mentioned that the reevaluation of tangible assets is accepted only at the end of the financial exercise, and the fair value is established ONLY by experts qualified in evaluation, members of a professional body within said field, acknowledged nationally and internationally.

Also as novelty, the accounting regulation presents for the first time the two possible methods to register reevaluations for depreciable tangible assets: the method of net value, through which the cumulated amortization existing on the date of the reevaluation is canceled, and the initial value of the tangible asset is substituted by the fair one; the method of gross value, through which we simultaneously reevaluate the historical cost and also the cumulated amortization on the date of the reevaluation, by using an index, so as the net accounting value of the asset, after reevaluation, is equal to the fair one (Courtenay & Cahan, 2004).

For the capitalization of the reserve, the account 1065 "Reserves representing the surplus made from reserves from reevaluation" is introduced, and the two treatments referring to the transfer of the reserve from reevaluation are maintained.

The amortization established based on the fair value, which is substituted to the entry value, is recalculated and is registered starting with the financial exercise subsequent to the reevaluation one. In case of other reevaluations, the new reevaluated value will substitute the old fair value, determined during the previous reevaluation.

The Order 3055/2009 did not bring any changes of the accounting treatments found in the Order 1752/2005, except for a few improvements related to their presentation in the explanatory notes within the annual financial situations.

Starting with the 1st of January 2015, the Order 1802/2014 came into force. The main changes targeted the elimination of the account 1065 "Reserves representing the surplus made from reserves from reevaluations" (which meant the surplus from reevaluations of fixed assets, capitalized either at the disposal of the assets or gradually, during the amortization of the good) and the introduction of the account 1175 "The reported result representing the surplus made from reserves from reevaluations". The possible sums registered in the account 1065 were transferred on the 1st of January 2015 in the account 1175.

From the perspective of tax on profit, the reevaluations executed based on normative acts (the last one in this sense being HG 1553/2003) allowed entities to completely deduct their amortization expense (calculated at the level of the bigger fair value) which led to the occurrence of fiscal facilities, in the context of the reserve from the reevaluation not being taxed.

After the 1st of January 2004, every entity that opted for the fair value was forced to take into consideration the accounting and fiscal regulations mentioned by the legislator.

The fiscal constraints from the area of local taxes related to the buildings that were not reevaluated being overtaxed determined a lot of entities from the private sector to resort to the periodical reevaluation of tangible assets, even if the tax regime of tax on profit had fluctuating evolutions. Whilst for the local tax on buildings, only after the 1st of January 2016 there has been a disconnection of fecality and accounting, because the established taxable value does no longer have a connection with the fair value. Thus, in our personal opinion, Table 2 can talk about five different steps in the evolution of fiscal treatments.

It is worth to mention if the society analyzed would have had as accounting policy the transfer of the reserve from reevaluation in the account for the reported result only when the asset for which said reserve was built is taken out of the evidence, meaning the monthly reserve would not have been capitalized, then on the date of going back to the method based on cost, the following would have happened: transfer the surplus made during the time when the fair value was applied and reducing the value of the asset with the reserve from reevaluation afferent to the value which was not amortized (Haw, Hu, Hwang & Wu, 2004).

In this case, the accounting treatment is similar to the one presented previously, except for the capitalization of the reserve taking into consideration the size of the monthly amortization of the asset. Basically, the reserve is capitalized all at once, when the entity gives up the model based on the fair value.

SOLUTIONS AND RECOMMENDATIONS

Just like the state of the economy determined the application of the reevaluation method, the management can decide to give up the application of the reevaluation method and to go back to the cost method, so as to protect the structure of the asset from the financial situations. Thus, through the Order 4160/2015 that modified the Order 1802/2014, there was introduced the accounting treatment related to the cancellation in accountancy of the reserves from reevaluations, in the situation where economic entities decide to give up (with motive / justification within the limits and conditions of accounting regulations) the model based on *FAIR VALUE* of tangible / intangible assets and to *GO BACK* to the evaluation model based on the origin cost / initial cost / historical cost. The decision to give up the model based on the fair value has to be taken only in the context of respecting the stipulations referring to the modifications of accounting policy and so as to not lead to the detraction of said assets, as opposed to the value that would have been noted in the balance sheet if those tangible assets would not have been reevaluated.

FUTURE RESEARCH DIRECTIONS

The presented and analyzed issues are a synthesized part of the vast amount of information that has been developed by the authors to create the framework for underlining the importance of the revaluation of assets in such a way that, regardless

Table 2. The staging of fiscal elements regarding the reevaluation of tangible assets

Stages	Fundamental elements
01.01.1990- 31.12.2003	The amortization expense is deductible at the calculation of tax on profit, whether the entry value is given by the historical cost or by the updated remaining value related to each fixed asset which has been reevaluated according to governmental decisions. The Decree of law 425/1981 mentioned that for state-owned buildings, buildings owned by cooperative organizations and by other public organizations that are subjected to amortization, according to the law, the local tax on buildings is calculated by applying a *quota of 0.75%* over the inventory value, no matter where the buildings are placed. Through the Law 27/1994 it was established that for buildings whose taxpayers are anything but individuals, the tax is calculated by applying a *quota of 1.5%* over the value at which they are entered in their evidence, no matter where the buildings are placed. The tax rate on buildings suffered modifications over time, for example it decreased to 1% through OG 24/1995 or it was located between 1% and 1.5% through OG 61/1997.
01.01.2004- 31.12.2006	For the fixed assets existing within the balance on the 31st of December 2003 which have not been reevaluated during that time, the amortization fiscally recognized when calculating the tax in profit is equal to the accounting amortization, both of them also including the reevaluation executed up until the 31st of December 2003, inclusively. For the fixed assets bought after the 1st of January 2004, the fiscal value is given by the entry value used when determining the fiscal amortization, meaning the historical cost. If reevaluations take place within that period of time, they are not recognized when calculating the fiscal amortization and, implicitly, when calculating the fiscal value. Therefore, the accounting amortization will be calculated according to the fair value, while the fiscal amortization is determined at the level of the entry fiscal value, no matter the aim of the reevaluation. The reserve formed is not taxable; same goes for the reserve capitalized periodically based on the accounting amortization (alternative treatment) or when it is taken out of the evidence. The tax on the buildings belonging to legal entities is between 0.5-1.5% for buildings that have been reevaluating in the past three years and between 5-10% for the buildings that have not been reevaluated in the past three years. The tax base is the same as the one registered in accountancy (the historical cost or the fair value).
01.01.2007-30.04.2009	For the positive reevaluations executed during this period of time, the Romanian state allowed the deduction of fiscal amortization at the level of the accounting amortization. Both the reserve established and the reserve capitalized periodically, are not taxable. The expense due to the negative reevaluation which is recognized is not fiscally deductible, being recovered through the fiscal deduction of the amortization which is established according to the initial value (bigger), not the fair one (smaller). The possible revenues coming from the cancellation of expenses are considered non-taxable. There are no modifications in the fiscal legislation referring to the local taxes.
01.05.2009-31.12.2015	The fiscal amortization has the same treatment as the one from the previous time period. There is an important change, in the sense that the reserve coming from reevaluations executed after the 1st of January 2004 are taxable, based on the asset amortization or when the asset is disposed or scrapped.
01.01.2016-present	There are no modifications concerning the tax on profit. The New Fiscal Code regulated in a distinct way the way of calculating the tax on buildings owned by legal entities, according to the destination of use of the building (non-residential, residential or mixed). For residential buildings owned by legal entities, the quota is situated between 0.08%-0.2%, whilst for non-residential buildings the quota is situated between 0.2% and 1.3%. There is a fundamental change regarding the establishment of the local tax on buildings, in the sense that the fair value established by evaluators for the recognition in annual financial situations is not the same with the imposable value of the building for strictly fiscal purposes. Basically, there are two different evaluation standards, one being used for the determination of the imposable value of the building and the other being used for the determination of the fair value to be registered in accountancy. In the case in which the owner of the building has not updated the imposable value of the building in the last three years prior to the reference year, the tax rate is 5%.

of the accounting model used, this is also useful for the quality of each user. Therefore, there are new directions of future research such as:

- Analyzing the impact of managerial decisions resulting from the adaptation of the accounting principles to other management methods;
- Companies are more likely to recognize revaluation decrements in addition to increments when they are large and are revaluing depreciable classes of intangible assets;
- The propensity to recognize a rising revaluation is subject to the inherent doubt of the assessed increase in value.
- A condition for the further achievement of fair value accounting presumed contribution to decision relevance and its disaggregation;
- Develop an analytical model to indicate conditions in which it is more likely that successful firms will choose not to revalue assets as a credible signal to potential investors;
- Examination the motives and characteristics of companies that value the patrimony and their choice of assets for revaluation.

CONCLUSION

This article analyzed the accounting and fiscal regulations concerning the reevaluation of tangible assets adopted in Romania in the last 27 years, more precisely between the 1st of January 1990 and the 31st of December 2016.

The accounting analysis emphasized the existence of plenty of normative acts, generated by the economic instability and the restructurings during the year 1990-2000, but also by the arduous process of harmonizing the Romanian accountancy with the European directives and with the international standards of financial reporting.

Arising from practical necessities related to the privatization process of State assets, on the background of a galloping inflation in the '90s, we notice that the reevaluations done during the first 10 years were established through governmental decisions, afterwards being the only subject of accounting policies options used by entities based on the general accounting regulations.

If in the early '90s the reevaluations were mandatory for state units, we notice that afterwards they were also applied by entities from the private sector, especially by the ones who wished to ameliorate the financial structure of the enterprise. Most accounting reevaluations led to positive differences from reevaluation, with the purpose of establishing the updated value / fair value of tangible assets, in accordance with the market value and with the condition of the good at the end of the year of reference. The technical instrumentation of the reevaluation met remarkable evolutions, especially during the first 15 years that were analyzed.

The harmonization with the European and international regulations, done especially through the Order 94/2001 and 306/2002, allowed moving to a new stage in the development and improvement of accounting treatments, starting with the people authorized to execute the reevaluation, continuing with the methods and techniques of reevaluation, and ending with the accounting policies of recognizing accounting reevaluations in the annual financial situations.

The financial crises that came up after 2008 on the real estate market led to massive decreases of the fair value, found in the use of the reserves built during the previous years or in the recognition of expenses related to the asset's depreciation.

From the fiscal analysis we remember that the reevaluations executed by the 31st of December 2003 based on the special normative acts led to fiscal facilities, because the society had the right to deduct the amortization according to the level of the fair value, whilst the reserve from reevaluations was not taxed for its building, not for its capitalization, but for its possible change of destination. With the occurrence of free reevaluations after the 1st of January 2004, as a general rule, the Romanian State did not recognize the reevaluation of assets, no matter the fiscal techniques used. Moreover, expenses being temporarily non-deductible in the case of negative reevaluations led to the taxation on profit done in advance.

However, entities from the private sector preferred to adopt the method of the fair value, because in the Fiscal Code that came into force on the 1st of January 2004, there was mentioned the over-taxation of buildings that have not been reevaluated in the past three fiscal years.

Afterwards, starting with the 1st of January 2016, after the adoption of the new Fiscal Code, a new change interfered in the fiscal plan, in the sense that the fair value used for the accounting reevaluations is not recognized when calculating the tax on buildings anymore. Evidently, also at the present moment the over-taxation of buildings is stipulated, if they have not been reevaluated in the past three years, but the taxable value established by evaluators only for fiscal purposes does not have to be registered in accountancy.

Moreover, we should notice the introduction, starting with the 31st of December 2015, of the possibility that entities can give up the method based on the fair value and go back, under certain circumstances, to the evaluation policy based on the historical cost.

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KEY TERMS AND DEFINITIONS

Accounting Estimates: Are often made under uncertainty in terms of determining their value as it involves the use of judgment. As a result, the risk of material misstatement is greater when these estimates are involved and in some cases the auditor may determine that the risk of material misstatement is greater, and it requires special attention in the audit.

Fair Value: The amount at which an asset is bought or sold in an arm's-length transaction, in which neither party is forced to act.

Financial Reporting: Individual financial statements prepared in accordance with IFRS, annual or whenever required in accordance with the national regulations of the reporting entity.

Management: Is the process of manager's coordinating and overseeing the work activities of others so that their activities are completed.

Revaluation: Process of increasing or decreasing their carrying value in case of major changes in fair market value of the fixed asset.

Tax Evasion: Illegal way an entity uses in order to reduce to completely erase tax liability.

Chapter 11
Drawing the Technologies of Improving the Methods of Crisis Management Based on a Complex Approach

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ABSTRACT

The purpose of any modern economic politics is to ensure the stability and economic growth. In order to achieve this goal, each economic agent models (builds) an individual economic strategy. The building of the actual economic model is influenced by many factors – political, geographical, national, and cultural. Today, by the notion of crisis, we understand an aggravation of the discrepancies of the social-economic system that threaten its stability. Specialist that deal with problems of crisis management claim that measures must be taken when the financial results of the enterprise become unsatisfactory, when symptoms of an unfavorable situation of the activity of enterprise appear. This chapter presents the economic-organizational analysis of the strategies applied in the anti-crisis management.

INTRODUCTION

The crisis takes part of the economic life of society (Munro, 2014). It represents a moment (a period) of malfunction in economic activity, which requires viable solutions, meant to assure a change or revitalization of damaged systems and processes (Kets de Vries, 2003). The causes of crises are complex, and its solving depends on

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the managerial - economic functioning in the system and process (Brown & Harvey, 2006). Although the crises were strictly analyzed, there are not known and mainly there cannot be forecast all the causes that trigger them, and sometimes not even the most essential causes (Burnes, 1997). No human society that has been known so far has developed and develops linearly (Lichtenstein, 2000). The economic life of a society has symmetric, dissymmetric and asymmetric moments, fast evolutions and stagnations, progresses and regresses, normal situations but also abnormalities, crises (Ulrich, 1997).

The external factors characterize the economic situation in which the organization functions and which she cannot depend on (Weiss, 2001). If the economic system is in crisis, it is expanded upon the public organizations, upon each one in a different way (Paton & McCalman, 2008). Everything depends on the type of property of the organization, its types of activity and its economic and professional potential (Harari, 1999). This is why we must have in view that each organization reacts differently at the co-rapport of external and internal factors. Thus, if the crisis appears in the system, a series of organizations disappear, others oppose strongly to the crisis phenomenon, and other find different possibilities to change the action of the external factors in their advantage, even if temporarily, in the chaos of general crises phenomena.

From the point of view of the action upon the organization, the causes of appearance of crisis within it may be classified in internal and external (Chandler, 1994). The external ones are determined by the condition of economy, the state's activity, the condition of the branch from which the organization takes part, as well as the impact of some natural phenomena.

The problem of crisis appearance in the public organizations must be approached from systemic positions (Bartunek, 1984). Any organization represents an incorruptible system made of elements, parts, components etc. interdependent. Concomitantly the developing of the organization even in the case of quantity increase does not modify the general characteristics of its integrity if, of course its destruction does not take place (Burke & Litwin, 1992).

The system in the process of its cycle of life can be either in a stable or unstable condition. Thus it is delimited the static and dynamic stability (Isabella, 1990).

Thus, in order to recognize the crisis, the symptoms must be tracked down on time, the factors that regard the possible intervention of the crisis situation must be determined, and its causes must be clarified (Latham & Pinder, 2005). Intuition and experience, analysis and diagnosis of the state of things are considered as means of discovering the possibilities of intervention in case of the crisis from the organization (Piderit, 2000). These means must be applied in all the stages of existence of the public organization by the management of public organization, because the economic agent may enter into deep crisis even in the stage of boom age or in case of a favorable external economic situation (Vaill, 1989).

The analysis of the activity of enterprise where the arbitrary management is implemented shows that only a single type of insolvability may be present, which is due to many causes (Pettigrew, Woodman & Cameron, 2001). Some real measures of drawing the enterprises out of crisis are different based on the initial causes and the conditions of insolvability (Kets de Vries & Miller, 1984). It is important to be taken into account the previous situation. Insolvability develops step by step (Frahm & Brown, 2007). If today the enterprise couldn't pay its liabilities it is possible to be happening due to external macro-economic reasons but other causes may exist as the wrong choice of the type of activity, errors in the evaluation of the volume of the market, irrational organization of management, investment policy, etc.

The strict delimitation of the internal and external causes is almost impossible, the emphasis and analysis of previous errors contributing to the financial stability in the presence of unfavorable external factors (Levy & Merry, 1986).

Insolvability appears under the form of misunderstanding of cash flows, when in the presence of entries cash flows of financial resources the enterprise is insolvable and passes from the stage of falling in the curve of cycle of life to the disappearance (Pfeffer, 2012). The fact that shows that the enterprise passes to the stage of disappearance is the stagnation of production in the enterprise and the cause of stagnation is the non-payment (Peters, 1998). Thus it appears the necessity of starting the procedure of bankruptcy.

Bankruptcy is an economic problem that is solved at certain legal levels (Day, 1999). The most important in the contemporary regulation of the process of bankruptcy is the emphasis of the balance between the creditors' interests and the tendency to keep the business.

In this chapter it is presented the economic – organizational analysis of the strategies applied in the anti-crisis management.

BACKGROUND

In economy, when there are spread the conflicts and most of enterprises are in crisis they are practically in the impossibility of making payments and the anti-crisis management is associated with an arbitrary management (Bloodgood & Morrow, 2000). That is why the existent methods anti-crisis management are forwarded to the accomplishment of legal decisions, therefore are arbitrary methods (Hayes, 1996). Today it was accumulated an experience of arbitrary work of managers and arbitrary courts being drawn a methodology of arbitrary management.

The instability of the situation of industrial enterprises in conditions of crisis emphasize the necessity of processing the long-term prognoses regarding the developing of the activity and drawing the decisions of stability of the situation (Weber, 1947). This leads to the appearance of anti-crisis strategies and mechanisms that allow the assurance of balance in the organizations that are in crisis.

The crisis situations require a strategic attitude (Jaffe, Scott & Tobe, 1994). Under the conditions of organizational stress, from the top-management of industrial enterprise that requires an ingenuity and flexibility in applying different strategies, that have as purpose the coming of the enterprise out of crisis. In this activity it is important the determination of the type of strategy that is to be applied in the real situation of the enterprise.

For the enterprises that are in crisis but that hope to obtain the success in future, it is recommended the growth strategy (Bolman & Deal, 1999). In case of failure in the strategic plan, the orientation must be forwarded to the withdrawal strategy. As for the maintenance strategy it can be applied only in short stages of functioning of the enterprise under the crisis conditions and it is used for getting resources by real actions.

The art of general manager of the enterprise that is in crisis consists in determining the purposes, resources, mechanisms, as well as the forecast of the duration of achieving these purposes (Kennerfalk & Klefsjo, 1995). Such a mechanism may be the strategic plan that is not drawn on a long period each time. A characteristic of a strategic plan is the fact that in order to obtain the suggested purposes in the plan there are indicated the functions of each subdivisions in different situations (Uzzi, 1997). In other words, each subdivision must have „an own formula of behavior", upon which it must be acted based on the modification of environment (internal and external). As a result, the general manager, must strategically draw in a continuous way „formulas of behavior" of the managers from the subordinated levels (chief of departments, sections), for the enterprise to achieve its purposes.

Thus, it is formed the anti-crisis strategy which represent a complex of special programs that contain besides purposes and resources, forms and rules of managing the subdivisions in the dynamic environment (formulas of behavior in different situations, algorithms of management, scheduled decisions).

In this regard the anti-crisis strategy must contain an assembly of formulas (approaches, mechanisms, and decisions taken by managers in different situations that could allow the fast accomplishing of its functions (Witherspoon & Wohlert, 1996). Such logic allows the emphasis of the strategy of the company on short and long duration of time. The main advantage of the strategic management – is the speed of receiving the decisions at the inferior level of management, being avoided the superior links (except for the procedures coordinated on a long duration). This property of the strategy is mostly applied in the anti-crisis management, as in the conditions of a changeable environment the decisions must immediately reach the different hierarchic levels (Burnes, 2004).

These moments allow the approach of anti-crisis management in a greater extent within the strategic management rather than the operative management (which corresponds more to the technologies of accomplishing the strategic plans).

Taking decisions in the anti-crisis management requires the necessity of a strict verification of actions, namely the deep analysis of the dynamic condition of the enterprise (Kanter, Kao & Wiersema, 1997). This is conditioned by the changeable system, which depend on the small gradients at the change of efforts from management (Brown, 1998). Analyzing the crisis phenomena in the activity of the enterprise and coming from the fact that it is submitted to cycles, the diagram of cycle of life of the organization in crisis is flexible.

THE ESSENCE OF MANAGEMENT METHOD OF THE PROJECTS AND PROCEDURAL APPROACH OF MANAGING THE ENTERPRISE

One of the major tasks of anti-crisis management in the industrial enterprises is the maintenance of balance for satisfying the investors' interests (shareholders) and workers (personnel). The decisive condition of the improving of crisis situation is the finding of reasons and resources for the consolidation of the common actions of opponent subjects of the enterprise.

As for the choice of main strategy of anti-crisis management in the industrial enterprise, the most advantageous is „the differentiate strategy" (Buchanan & Boddy, 1992). The enterprise in crisis has a lot of funds in excess, as well as free collaborators, which does not allow that in short term to reach the minim level at the basic production and to become leader in low costs. In the same time the existence of the potential surplus can allow the fast taking of measures regarding the modification of operating quality (consumption) of products, in correspondence with the preferences of different groups of consumers, increasing the sales and the profit, implicitly. The combining of the strategies mentioned above (leader in low and differentiate costs), in the anti-crisis management not only will double the effect but also lead to the reduction of the increase. That is why it is preferable to be chosen a single strategy, in our case – „ the differentiate strategy" (Antoni, 2004).

In essence the strategy represents a multidimensional category that describes the functioning technology of the organization for obtaining and achieving some purposes (Latham & Pinder, 2005).

Usually there are focused the following four groups of rules that shape the strategy of the organization: group 1: rules of evaluation of the results of activity (they determine the direction of orientation and form the plan); group 2: rules referring to the relations with the external environment (they shape the market strategy: what, whom and how much must be delivered); group 3: rules referring to the relations and procedures within the organization (organizational conception); group 4: rules of daily activity (operative procedures).

The drawing of the strategy for the organization is made by establishing the common functioning directions (Munro, 2014).

In order for the condition of the organization to be balanced, the strategy may be drawn on a long period (5-7 years) and not to have strict reorganizing measures (Burnes, 2004).

For the organizations that are under crisis the strategy is drawn on a shorter period (1-3 years) with emphasized characteristics; it contains a lot of re-organizational and organizational-technical innovations.

A particularity of the anti-crisis strategy is the closed characteristic of the application period and its content. The strategy is considered to be accomplished once with the passing of the organization to the balanced functioning and stable work condition. The anti-crisis strategy may be considered a means of achieving a certain purpose, namely- overcoming the crisis. The purposes of the organization represent an assembly of desired results of its functioning, which are reflected in figures, graphics and other ways of picturing its dynamic and statics condition.

Each organization has an assembly of purposes which reflect the goals of society (macro-environment), of the business environment, of shareholders (including of investors), as well as of the hired personnel (Frahm & Brown, 2007).

As for the top management, although it takes part from the hired personnel, its goals are specific (Pfeffer, 2012). They represent a balance; on the one hand the founder's interest and on the other hand the hired personnel, as both groups can determine the fate of the general director, top manager that in some situations of crisis the enterprise is very unstable.

In crisis conditions the attention of the strategic management should be focused to the second group of purposes – operating, as their achieving may draw the organization out of the vulnerable situation.

In this context, the notion „orientation point" is the most adequate for emphasizing the solving parameters of the anti-crisis task (Weiss, 2001).

As a result, we can say that the anti-crisis strategy represents a programs document which contains the name of the purposes (final and intermediary), resources and methods of training (personal, funds), the technology of solving the tasks regarding the drawing of the enterprise out of crisis (structure of organization, formulas of behavior of the personnel, rules of financial and marketing activity).

The anti-crisis strategies of autonomous stage directions are essentially different from the common ones (Rojon, McDowall & Saunders, 2015). This is due to their high dynamic, the intense drawing of resources and obtaining both positive and negative results. Some characteristics of comparing the anti-crisis and common strategies are shown in Table 1.

One of the permanent anti-crisis strategies is the evaluation and forecast of the possibility of the enterprise to reach in crisis condition (Wong, 2013). If the enterprise function in a sedate way this task has a forecast-analytical character, and in crisis stage the character of the strategy is on short term.

Usually the crisis is produced both from internal and external causes (Sementelli, 2016). Though, in order to track down in due time the crisis, firstly it must be evaluated the external environment and must be made the analysis of its probable condition on short and long term.

The metamorphoses of the external environment considerably influence the reproduction dynamic of industrial enterprises, as they are dependent on the request of their products and the financial policy at macro-level.

The particularity of the competitive environment at macro-level consists in the fact that it may initiate crisis processes in all the stages of the cycle of life of industrial enterprises; this can happen both with the whole company and with some of its products.

The periodic crisis conditions with a short duration represent a permanent phenomenon in the functioning of the enterprise, especially in the conditions of instability of the external environment (Latham & Pinder, 2005). It is worse when theses micro-crises are integrated in the new condition of micro-economy and gets a long term character. If the indicators of the entrepreneurial activity of the external environment go slowly, a profound crisis in the industrial enterprise appears gradually.

Table 1. Anti-crisis strategies in autonomous stage directions

Index	Strategies	
	Common	Anti-crisis
Purposes	Progressive balanced functioning	Fast coming out of the unstable condition
Main focus	Long-term programs	Working sectors and stages for removing the insufficiencies
Resources	Mainly from external sources	From internal sources
Business	Increasing of production, orientation to big segments of the market	Diversification, creating more products for different small segments of market
Production	Increasing the mass production, leader in low costs	Diversification, increase of quality of traditional products, orientation to the marketing of differentiate products.

This fact allows the forecast in time of the crisis in its incipient stages as well as the drawing of a set of measures regarding the reduction of damages and drawing enterprise out of crisis.

The general approach of forecasting the dynamic parameters in the external environment upon the processes of enterprise is shown in Table 2.

The forecast of crisis is a multilateral process that, with some deviations can be shown in the following constructive schema: establishing all the causes that lead to crisis in the enterprise; determination of factors that prevent the crisis;

Table 2. Influence of changes of external environment upon the condition of enterprise

External environment factors	Processes at macro-level	Research at micro-level	Resources of internal retention
Political	- instability of government's actions; - inequality of the measures taken by government towards different branches and spheres; - interdictions; - unilateral orientation of local administrations	- withdrawal of investments; - decrease of investors' interest towards the enterprises that manufacture raw material	- export; - simplification of production process; - reduction of personnel;
Legislative	- contradictory legislation, - lack of attention towards the stagnated processes from the respective branch, - limitation of natural monopolies	- increase of prices at the monopole products, - decrease of production efficiency - decrease of request	- saving the material and energy resources - reduction of sciento-intensive production
Technological	- once with the diminishing of the budget it is registered its decrease for science and technology	- decrease of request at sciento-intensive products, - increase of prices at modern equipment's	- orientation to import products, - use of international technologies
Social	- traditions national, - conservative perception towards the appearance of innovations, - low dynamic of the growth of economic and technological culture.	- difficulties of restructuration, - slow appropriation of new technologies, - labor non-motivation	- intense training of personnel, - management of quality, - creation of implementation groups, - differentiation in labor remuneration
Business environment	- high prices at the products of monopoles (energy, raw material, transport, etc.), - non-compliance of the contract by suppliers, - instability of consumers	- increase of prices at the sold products, - decrease of sales	- decrease of production, - limitation of resources, - decrease of transport expenses, - creating the dealers network, - participation at meetings (debates) of trade union.

Source: Drawn by author based on the synthesis of bibliographic sources drawing methods of neutralizing the crisis and simulates the anti-crisis processes. The particularity of the competitive environment at macro-level consist in the fact that it can initiate crisis processes in all the stages of the cycle of life of enterprises happening both with the entire company and with some of its products.

Short period periodical crisis represents a permanent phenomenon in the functioning of the enterprise, especially in the conditions of the instability of external environment. It is worse when these micro-crises are integrated in the condition of the micro-economy and gets long term duration. If the indicators of the entrepreneurial activity of the external environment deviate slowly, a profound crisis in the industrial enterprise appears gradually. This does not allow the forecast in due time of the crisis in the incipient stages or the drawing of a set of measures regarding the reducing of damages and drawing the enterprise out of crisis.

In the anti-crisis management the strategic component plays a special role (Piderit, 2000). Its essence consist in the systematic drawing of the rules, scheduled decisions, „formulas of actions", for the internal management in different situations of the changeable environment (Weiss, 2001). It is determined by the fact that in industrial enterprises with a complicated internal structure the superior managers do not succeed to control the modifications of the situations in all the subdivisions of the enterprise and to draw operatively proper solutions. This is more actual in the crisis period of organization, when the reaction to the changes of the situations must be immediate. Such working conditions require the existence of an assembly of "managerial formulas" that have to be applied after receiving the decisions in the changeable conditions (Kets de Vries, 2003).

Generally the optimum solving of the problems that appear in the anti-crisis management requires the systematic use of prognosis-analytical methods with frequent application of the economic-mathematic instruments, calculation technique, activities of experts, analysts and those who draw different systems.

One of the most frequent forms of supplying anti-crisis management is the modeling of anti-crisis strategies (Lichtenstein, 2000).

Taken into account that each organization has a unique content, for drawing adequate anti-crisis strategies it is necessary to be determined the type of organization from the point of view of inclination to accomplishing one or another strategy. In this regard it is advised to be taken into account one of the two models, which are totally opposed – American or Japanese model, after which can be built the own model of anti-crisis strategy in organization.

On the other hand, the contemporary corporative management is often based on the principles of the method of projects management. The managing against crises is a component part of corporative management, this is why in its organization it is necessary to be followed the principles of projects management.

In the present moment in Romania it is accepted an ideology of program managing, meaning the forming process of some sets of programs. In the same time some problems that appear in the process of drawing the curriculum remain still opened. This is related by the difficulty of forecasting the development of economy. Generally it is established the organizational mechanism of managing the programs. From this point of view, the methodology and technique of projects management is more used and solicited in the conditions of market economy. The methods of projects management can and must be an effective source of accomplishing the reforms both at state and regional level but also at a level of an average element of management.

The experience of Japan, SUA, Korea and other developed countries denotes that the management of projects is a means of going out of economic crisis and a method of solving major scientific, production and social problems. This method is a way of managing, in condition of transition, the systems in development, in conditions of instability and uncontrolled increase of prices and the deficit of resources, the refuse of state to manage directly the economic activity of the production of enterprise and in the condition of appearance of the owners of investments, projects, unstable fiscal system, etc.

The management of projects is a synthetic discipline that gathers both special and professional knowledge (Paton & McCalman, 2008). The special knowledge reflects the specific at a certain activity domain at which the projects refer (construction, innovational, ecological, organizing, etc.). The management of projects became an absolute discipline due to the knowledge required as a result of studying the general rules, of their existence in the projects from all the domains of activity, as well as the efficient use of the methods and means used in the different projects (Pettigrew, Woodman & Cameron, 2001).

The groups of processes are similar by the results produced: the results of a process are the entries for the following process (Brown & Harvey, 2006). Also, the groups of processes of the management of projects do not consist in discrete and homogenous events, they are works that are intersected and manifested with different degrees of intensity within each stage of the projects. The interaction of the groups of processes are intersected with the stages so that, the end of a stage offers entry data for the initiating of the next one. For instance, the closing of the projecting stage requires the receiving from the client of the projecting documents. In the same time the projecting documents serve as description of the product for the execution stage.

The repeating of the initiating processes at the beginning of each stage helps at focusing the project upon the specified necessities in order to satisfy those for whom it was conceived. The management of projects includes all the aspects of the activities of organization and has a big number of subsystems of management. The subsystems of management of the projects are formed depending on the managing domains and elements, quite independent within the projects. They could be: durations, resources of labor forces, expenses, acquisitions and deliveries, information and communication, the risks of the project, etc.

For the accomplishing of the enterprise's program against crisis it is necessary to act according to a plan previously established and thought which is based on scientific-theoretical resources and applicative practice studies from the domain of management, marketing, personnel management and financial management. Based on the existent performances a plan of managing the enterprise in situation de crisis or about to enter the crisis must be drawn by whose application to be solved the internal problems of the enterprises, efficient handling of external unfavorable factors and the use with maximum efficiency of the possibilities offered by the macro-environment of the enterprise.

In the initial stage must be determined the correct strategy of the enterprise that can allow the efficient competing and surviving on the market (Burnes, 2004). This is possible only after a rigorous managerial investigation of the enterprise and making the SWOT analysis (analysis of weak and strong points, risks and possibilities). Further, it must be drawn an efficient instrumentation for executing the strategy, including in it the basis set of forms and means oriented towards the fundamental directions of the activity of the enterprise, focusing the efforts upon one or more of them, according to the situations.

Each enterprise is in continuous change of the factors of internal and external environment (Mikalef & Pateli, 2017). Taking decisions of „filling in the lacks", (when the management of the enterprise solves only the current business and the problems already appeared), transferring the little resources in areas, where metaphorically speaking it is already fire, is inefficient and fatal for the company (Harari,1999). In most of the situations the main cause of the severe condition of the native enterprises is the managerial ignorance and the reduced capacity of strategic thinking and planning.

The strategic directions drawn within the first mission determine all the basic principles of the functioning of the enterprise, including the type of activity, the resources used, its strategic potential, etc. Making modifications in the functioning of the enterprise means changing its profile and increasing the risk of appearance of some specific consequences. This is why the continuity period of the existence of the enterprise within the first mission is the continuity period of existence not affected by crisis, characterized by the competitive privilege which will support it. Nevertheless, some managers do not take into account the choice and formulation of the mission of the enterprises. They often do not imagine what it means and what is good for. Sometimes, the mission represents the purpose of obtaining the profit. But, it is known that choosing the profit as general mission of the enterprise is incorrect, as the profit represents the problem of internal order of the enterprise.

In the same time the enterprise is an open system, it can survive only if it satisfies a necessity which refers to it. This is why the mission of the enterprise is to be established depending on the correlation with the ambient environment.

After choosing the strategy and drawing the adequate plan the management should take a rigorous control of the organizational structure for determining the capacity of achieving the objectives. The strategy established the structure and the structure at its turn always reflects the strategy. Thus there isn't a certain method to be used at forming the organizational structure. The structure of the enterprise will be one that corresponds to dynamic, complexity and personnel. Once the enterprise develops and its objectives show an evolution the strategies and plans are modified. The same thing happens with its structures. There is a dynamic correlation among strategy, structure and environment in which the enterprise activates. Many enterprises make a big mistake which consists in the fact that they impose new strategies to the existent structures of the enterprises that are not modified when essential changes of the existent environment take place. Such situations shouldn't exist. The structure depends on strategy, and the stage of forming the structure within the process of planning represents the important stage in achieving successfully the strategic plan. Drawing the strategy is a complex stage. The incapacity or the lack of tendency to recognize the importance of the structure within the process of planning determined the failure of many well though and efficient strategies.

Although the purpose of the organizational structure consists in the necessity of assuring the achievement of the suggested objectives, the planning of the structure must relate to the strategic planning of the enterprise. Some authors consider that choosing the general structure of organization represents the decision further to the strategic planning, as it determines the way in which the enterprise will use the efforts in order to achieve its basic goals (Antoni, 2004; Fenton & Pettigrew, 2000; McCune, 1999; Sementelli, 2016; Mikalef & Pateli, 2017). In our opinion the activity of the enterprise is another position. We think that it is based on the strategy of the enterprise but it is not the strategy itself. On the contrary the strategy determines the structure. This means that the structure of the enterprise should be structured in such a manner so that it could assure the execution of the strategy. As strategies are modified, in time there will be necessary the adequate changes in the structure of the enterprise.

According to the classic theory, the organizational structure must be drawn vertically from up to down (Chandler, 1994). No wonder that the succession of the drawing of organizational structure coincides with the succession of the elements of the planning process. At the beginning the managers should make the division of the enterprise on large domains of activity, then to establish actual objectives, as in case of the planning when at the beginning are formulated the general objectives and then are established the actual rules. It is important to understand that the organizational structure appeared in the result of drawing is not a rigid form, resembling the skeleton of the building as the organizational structures are based on plans and any essential modifications in plans may require essential modification in structure. In conclusion the existent enterprises should pay a special attention to the process of modification of the organizational structure as in the case of reorganizational process as this process like all the functions of the enterprises, is infinite.

SOLUTIONS AND RECOMMENDATIONS

An important aspect underlined in the analysis is that of the cycles of development of economy on market which is the main cause of appearance of crisis situations in enterprises as a result of non-coincidence of economic development in general and of the cycle of life of enterprises in particular. The coordinates of the cycle of life of the enterprise under curve on incomes- losses of the enterprise on a period of time, offers the possibility of building a curve of the cycle of life based on real data and to use this curve as an instrument of strategic management.

The characteristics of the three stages of stages of aggravation of crisis (presented in this chapter) in case of autonomous stage directions and commercial companies of public administration denote the fact that they go non-uniformly, getting deeper with each stage, and the more profound the process is, the more difficult to reestablish the business will be.

It is remarkable the general solution suggested, namely the improving of managerial quality. The most important thing in the anti-crisis management is the assuring of necessary resources when the financial difficulties do not have a permanent, stable character. In other words, it must be drawn a certain mechanism of management, that would allow the solving of the problems at the highest level of management of the economic agent, until they will have a severe character. From this kind of approaching of the anti-crisis management it may be found its purpose– assuring a rigid position on the market and assuring the financial stability of the company regardless the economic, political and social metamorphoses from the country.

Very important is the determination of the functional diagram of anti-crisis management and the description of the four stages suggested: managing the enterprise when there is no crisis, detecting the crisis and the managing in the period of entering in crisis, managing of enterprise in the period of crisis and managing the enterprise for coming out of crisis. It must be emphasized that the stages form a close cycle of management of the organization, in this regard being made the principles of continuity and systematicity of the anti-crisis management.

FUTURE RESEARCH DIRECTIONS

It was underlined that generally crises reflect the developing rhythms of each organization that sometimes do not coincide with the rhythms of social developing or the developing of other organizations. Each organization has its own developing potential and conditions of accomplishment, subsequently being submitted to the rules of cyclic development of the entire social-economic system. That is why upon the public organization act permanently both external factors, determined by the impact of general economic cycles and the internal ones that depend on their own cycles and by the evolution of crisis.

It was shown that in order to have the possibility to launch the anti-crisis management programs, the management of local public administration should know the factors, symptoms and causes of the crisis. In this regard it is remarked the idea that the symptoms are shown in indicators and, which is not less important, in the tendencies and modifications that reflect the functioning and developing of the public organization. Thus, the management of public administration analyzing the indicators regarding the productivity of work, efficiency of activity, yield of funds, energo- intensity of production, financial condition or factors such as fluctuation of personnel, discipline, satisfaction at work, conflict condition etc. of economic agents from the economic domain from the public administration can characterize the condition of organizing the production based on the appearance of crisis

CONCLUSION

The instability of the situation of industrial enterprise in crisis conditions are emphasized on the necessity of processing the prognoses on long term regarding the development of the activity and drawing the decisions of stability of the situation (Parveen & Noor Ismawati, 2015). This leads to anti-crisis strategies and mechanism that allow the assurance of balance in the organizations that are in crisis.

It is analyzed the strategic attitude in crisis situations. Under the conditions of organizational stress it is required from the top-management of the industrial enterprise an increased ingeniousness and flexibility in the application of different strategies that have as purpose the drawing of the enterprise out of crisis. There were pointed out the types of strategy that must be applied in the actual situation of the enterprise: growth, stability, coming out.

In this regard the anti-crisis strategy must have an assembly of formulas (approaches, mechanisms), of the managers 'decisions taken in different situations that could allow the fast accomplishment of his positions. It is noted that such an approach allows the highlighting of the company's strategy on a longer or shorter period of time. The main advantage of the strategic management – speed of receiving the decisions at the inferior level of management, being avoided the superior links (except for the procedures coordinated on a long duration). This property of the strategy is mostly applied in the anti-crisis management, as in the conditions of a changeable environment the decisions must immediately reach the different hierarchic levels.

The aspects presented allowed the approach of anti-crisis management in a greater extent within the strategic management rather than the operative management (which corresponds more to the technologies of accomplishing the strategic plans).

In drawing the management plan of the enterprise in crisis or about to enter the crisis is suggested the use of the management of projects at drawing the concept of the anti-crisis management of project.

This means first establishing the mission, the objectives and strategic alternatives of the anti-crisis management. Further it is presented an efficient instrumentation for drawing the strategy, including in it the basis set of forms and means oriented towards the fundamental directions of the activity of the enterprise, focusing the efforts upon one or more of them, according to the actual situation. Based on the real situation, there were pointed out the following main instruments that any enterprise that is in economic recession can use: organizational structure and distributing the positions; management of personnel; optimization of cash flows.

Referring to the organizational structure it is pointed out that its purpose consists in the necessity of assuring the achievement of the suggested objectives of the enterprise, the planning of the structure must relate to the strategic planning of the enterprise. In our opinion the choice of the general structure of organization is based on the strategy of the enterprise but it isn't the strategy itself. On the contrary the strategy determines the structure. This means that the structure of the enterprise should be structured in such a manner so that it could assure the implementation of the strategy. As strategies are modified, in time there will be necessary the adequate changes in the structure of the enterprise.

In case of reorganization of an enterprise which is in crisis, those who take the decisions regarding the component parts of the anti-crisis programs should take a series of practical measures regarding the management of the personnel such as: reducing the levels within the organizational structure of the administration and not the reduction of the jobs; correlation of structural subdivisions correlation of structural subdivisions of the organizational structure and taking some measures of maintaining the stability of the new organizational structure, as well as psychological support of the personnel.

Referring to the optimization of the cash flows there are suggested some financial strategies among which can be reminded: strategy of increase of liquidity of assets; strategy of the optimization of the structure of the capital; strategy of improving the quality of the system of registration and control of losses; strategy of optimization the profit; strategy of optimization the financial liabilities.

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KEY TERMS AND DEFINITIONS

Environmental Characteristics: The external factors that may limit or support a company's activities.

Managerial Characteristics: Properties of managers who make business decisions.

Organizational Characteristics: An organization's demographic features, such as size, financial revenue, technological expertise, and location.

Organizational Performance: Elements affecting company performance such as financial and marketing factors, return on sales, return on investment, etc.

Chapter 12
Joint Enterprise and Financial Position Consolidated at the Date of Acquisition

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ABSTRACT

The continuous increase in the diversity and complexity of economic and financial transactions at both national and transnational level is leading to a continuous dynamic of business organizations and reorganizations. Thus, some of the practical forms adopted are the formation of groups, associations, and other organizational forms, which implies the production of significant mutations in the standards and regulations in the field at national and international level. The chapter aims to introduce the concept of joint business and to distinguish between the notions of acquisition of assets and acquisition of businesses. It also discloses the required information requirements for affiliate related party as well as the interests held in other entities (subsidiaries, joint ventures, joint ventures, etc.).

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INTRODUCTION

There may be situations where more investors are interested in investing in the same entity (Alzola, 2017). They may at any time have a greater or lesser influence on the entity, but only one of them may have control (Bozec, 2008). Other investors may have the right to participate in decision-making on the activities of the entity, which may eventually constitute evidence of significant influence, but not of control (Daske & Gebhardt, 2006).

The cost of acquisition, also referred to as the cost of the business combination, is the sum of the fair values of the transferred assets, the liabilities assumed and the equity instruments issued by the acquirer in exchange for control of the acquire at the date of the transaction (Ghosh & Olsen, 2008). It also includes direct, directly attributable costs (such as professional fees), but not the costs of issuing equity securities or debts used to pay the obligation (Klein, 2002).

When the settlement of part or all of the cost of a business combination is deferred, the fair value of that deferred component must be determined by adjusting the amounts to be paid at the present value at the date of exchange, taking into account any premiums or discounts that may appear with the settlement (Lobo & Zhou, 2001).

When applying the acquisition method, the income statement and cash flow statements will include the entity's operating performance of acquire as of the acquisition date (Richardson, 2011). The results of the pre-acquisition operation are not restated and remain the same as those reported historically by the acquirer (Xiong, 2006). As a consequence, the acquirer's financial statements (the balance sheet, profit and loss account and cash flow statement) will not be comparable before and after merger but will reflect the reality of the merger.

Despite the solid principles embodied in IFRS 3, many analysts believe that the determination of fair value implies a considerable degree of managerial flexibility (Zeghal, Chtourou & Fourati, 2012). Values of intangible assets, such as computer software, may not be easily validated when analyzing acquisitions. Managerial reasoning may be particularly evident in the allocation of surplus purchase price (after all other assets and liabilities). If, for example, the remaining excess purchase price is allocated to goodwill, the net profit of the firm will not be affected because the goodwill is not depreciated (but tested for impairment). If the surplus (the positive difference) is to be allocated to fixed assets, depreciation would increase, thereby reducing net profit and generating incorrect financial statements.

Subject recognition of goodwill in financial statements found both supporters and opponents among professionals (Louwers, Ramsay, Sinason & Strawser 2007). Supporters of recognized goodwill say that goodwill is „the present value of the surplus revenue that a company can get" (Kothari, Leone & Wasley, 2005). This group claims to determine the fair value of these excess revenues is similar to determining the present value of cash flows associated with other activities and projects. Opponents of the recognition fund argue that the purchase price paid, many times proves to be based on unrealistic expectations, leading to further reductions default to zero of the goodwill (Jeanjean & Stolowy, 2008).

Both arguments have merit. Many companies are able to achieve revenues in excess out of their investments. As such, the prices of ordinary shares of these companies must register first a book value of intangible assets. Consequently, investors who buy ordinary shares of such companies pay for intangible assets (reputation, brand names, etc.).

There are companies who receive low incomes from investments, despite the presence of a surplus revenue balance indicated in goodwill (Dechow, Sloan & Sweeney, 1996). The price of ordinary shares of these companies tends to fall below book value because their assets are overvalued (Mechelli & Cimini, 2014). Therefore, it should be clear that only by paying a price above fair market value of the net assets of the acquired company it cannot guarantee that the purchasing entity will continue to receive surplus revenue.

Under IFRS 3, accounting goodwill must be capitalized and tested annually for impairment (Barth, Landsman & Lang, 2008). Accounting goodwill is not amortized. Impairment of accounting goodwill is a non-cash expense (Pope & McLeay, 2011). However, impairment of accounting goodwill affects reported net profit (Beasley M.S., Buckless, Glover & Prawitt, 2009). When the fund is deducted from current profit period, reported current profit decreases, but future profit should increase reported when the asset value is reduced to zero or when it is no longer impaired (Doukakis, 2010). This results in the reduction of net assets and of equity on the one hand, but an improvement in return on assets, the asset velocity indicators, profitability indicators of equity and equity velocity is felt, on the other part.

The main objectives of this chapter were to identify the risks at the level of the US and EU market groups at an early stage and to discuss possible regulatory projects to facilitate convergence methods to address common issues.

BACKGROUND

Effective functioning of joint enterprise is ensured only when accurate and reliable information is disseminated between stakeholders who have invested in the performance and financial perspectives of an entity. According to Rittenberg & Schwieger (2005), if the market does not receive high-accuracy information, the confidence in the system is seriously affected, and investors make poor quality decisions. Furthermore, Whittington & Pany (2008) showed that disseminating reliable financial statements supports the user community in allocating resources efficiently, provided that financial statements undergo an independent audit. The auditor's review of financial information regarding joint enterprise adds credibility and reduces information risk, given the presumed conflict of interest that might exist between management and capital owners, based on information asymmetry theory. Related to this theory, Lin, Riccardi & Wang (2012) pointed out the case of former Enron's chief financial officer, who pleaded guilty to the charge of manipulating results in order to determine a rise in the price of the company's shares, followed by the receipt of consistent financial incentives and the sale of shares at an artificially increased price.

Enron, HealthSouth, Kmart, Parmalat, Tyco, WorldCom, Waste Management, Sunbeam, Adelphia Communications or Xerox represent just a few examples of companies that were subject to profound debates regarding the manipulation of financial information, with undesirable effects upon the investors' community (Tendeloo & Vanstrelen, 2005). As a result of the accounting fraud unrevealed within these corporations, investor confidence has been seriously shaken, which has led to the collapse of trading prices. According to Leuz, Nanda & Wysocki (2003), financial experts have estimated investors' losses to USD 7 trillion, over a period of three years from peak prices recorded in September 2000. For example, Xerox Company has been accused of a variety of accounting manipulation techniques, applied between 1997 and 2000, in order to meet investors' expectations and to disguise the true dimensions of operational performance. The share price, which was above USD 60 per share, fell to less than USD 5 per share after controversial accounting practices were revealed. Beasley., Buckless, Glover & Prawitt (2009) captured the devastating losses caused by Enron which announced in 2001 an overestimation of the earnings declared over the last four years by USD 586 million, as well as the fact that it owed an estimated USD 3 billion due to past unreported liabilities. At the time of bankruptcy registration (December 2, 2001), the stock price fell to USD 0.40 per share, from maximum values that exceeded USD 100 per share. In June 2002, WorldCom announced a restatement of its financial results caused by the capitalization over the most recent two reporting periods of USD 3.8 billion in expenses, although the amount would have impacted upon the accounting result. In fact, at the time, the WorldCom scandal was perceived as "the largest accounting fraud in history, with an overstatement of revenue estimated at USD 11 billion, an overvalued balance sheet of over USD 75 billion, and shareholders' losses estimated at USD 200 billion USD, according to Securities Exchange Commission pronouncements, cited by Marra, Mazzola & Prencipe (20116) and Leuz, Nanda & Wysocki (2003) argue that the orientation of IFRS to investors improves the quality of information disseminated since managers are under pressure to provide a true and fair view of the assets and liabilities of the company and engage less in earnings management activities. Barth, Landsman &Lang (2008) argue that reducing the number of accounting options within the IFRS limits the earnings management practised by managers. The accounting standards retain two treatments for the same problem: benchmark treatment and allowed alternative treatment (Allen & Ramanna, 2013). As the IASB framework requires disclosure of more information and requires companies to publish financial statements on annual and semi-annual basis, as well as quarterly reporting (Choi, Peasnell & Toniato, 2013), Daske (2006) found that communication of a higher volume of information than required by the majority of national accounting systems led to advanced transparency in accounting values, which limits the earnings management. Similarly, Fu, Kraft &Zhang (2012) point out that the firms adopting IFRS are expected to provide more disclosure, which increases transparency and reduces the level of accruals.

In most financial reporting frameworks, the continuing assumption of business entity is at the base of the concept of assessment, with no significant reduction in the transactions concluded in adverse conditions (Horton, Serafeim & Serafeim, 2013). On the other hand, evaluators should not confuse the economic concepts of value for intangible assets because if there is an active market, the fair value of these assets is easily determined, and when there is no active market, the value of intangibles can be determined only using valuation techniques and estimates based on future cash flows and discount rates adjusted according to risk (Landsman, Maydew & Thornock, 2012).

So, now we are at the border between traditional accounting of joint enterprise and a new theory of evaluation of these assets that has a form established by the international valuation standards. Accountants, in their turn, reflect accounting estimates only in registers and certainly not the value generated by the presentation of materials (Watts & Zimmerman, 1978). It is a clear dichotomy between the historical cost accounting and fair value in accounting measurement, which creates a productive tension in discussions related to economy based on knowledge (Brüggemann, Hitz & Sellhorn, 2013). However, it is more likely for a certain period of time to develop both paradigms in parallel and then become convergent, thus solving the paradox of joint enterprise value and financial position consolidated at the date of acquisition (Zéghal, Chtourou & Mnif, 2011).

THE IMPACT OF BUSINESS COMBINATION ON THE CONSOLIDATED STATEMENT

Any transaction in which a company obtains control of entities may qualify as a joint enterprise (Messie, Glover & Prawitt, 2008). An entity shall determine whether a transaction or other event is a joint enterprise by applying the definition in IFRS 3 Joint Enterprises, which requires that the assets acquired and liabilities assumed constitute a business (Houque, Dunstan & Karim, 2012). If the assets acquired are not a business, the reporting entity shall account for the transaction or other event as an asset acquisition.

An enterprise is defined as a set of active and integrated activities that can be directed and managed in order to provide a return (Iatridis, 2010). Profitability can be in various forms such as, for example, dividends, lower costs or other economic benefits directly to investors or other owners, members or participants.

An integrated set of activities and assets - to be led and managed - must have two essential elements - inputs and processes applied to those inputs, which together are or will be used to generate output (Cairns, Massoudi, Taplin & Tarca, 2011). Not all inputs and processes, which use them for carrying on the business seller, will find their own inputs and processes integrated into the buyer. Such inputs and processes can be excluded if the buyer that this is appropriate. This does not change the fact that an undertaking was purchased. Determining whether a particular set of assets and activities is a business should be based on integrated assembly capacity to be led and managed the firm a market participant. So, when assessing whether a given set is an undertaking is not relevant whether a seller operated assembly as a business or whether the acquirer intends to operate the business as a whole (Marra, Mazzola & Prencipe, 2011).

An entity shall account for each business combination by applying the purchase method (DeFond, 2010). This method involves the following steps according to IFRS 3: identifying an acquirer; determining the acquisition date; recognition and evaluation of the identifiable assets acquired, liabilities assumed and any non-controlling interest in the acquire; and recognition and measuring goodwill or a gain from a bargain purchase.

For each business combination, one of the combining entities shall be identified as acquirer (Lang, Raedy & Wilson, 2006). Determining the acquirer has implications from an accounting perspective, meaning that it will prepare consolidated financial statements. Determining the acquirer is considering the provisions of IFRS 10, meaning that the entity that obtains control is deemed to be the acquirer.

Other relevant factors and circumstances should be considered in identifying the acquirer in a business combination effected by exchanging equity interests (Table 1).

There may be situations where control is obtained at an earlier date or after the closing date, such as if a written agreement provides that the acquirer obtains control of acquire at earlier date than the closing date (Thong, Ding & Lim, 2008). The acquirer shall consider all relevant facts and circumstances to identify the date of purchase.

Table 1. The factors mention in IFRS 3

Factors and circumstances	The entity is undertaking in:
Voting rights relative entity resulting from the business combination	● the combining entity whose owners as a group retain or receive the majority of voting rights of the entity resulting from the combination. This also applies to commitments and options, warrants or convertible securities of votes unusual or special.
The existence of minority voting rights in the entity resulting from the combination, if no other owner or organized group of owners who have significant voting rights	● usually the combining entity whose single owner or organized group of owners holds the largest minority voting rights part of the entity resulting from the combination.
The composition of the governing body of the combined entity	● the combining entity whose owners have the ability to elect or appoint or remove a majority of members of the governing body of the combined entity.
Composition of senior management of the combined entity	● the combining entity whose (former) management dominates the management of the combined entity.
Terms of the exchange of equity	● the combining entity that pays a premium over the fair value before combining holdings in the equity of other entities or other entities participating in the combination.
Voting rights relative entity resulting from the business combination	● the combining entity whose owners as a group retain or receive the majority of voting rights of the entity resulting from the combination. This also applies to commitments and options, warrants or convertible securities of votes unusual or special.

The acquirer shall classify - the date of purchase - the identifiable assets acquired and liabilities assumed in order to allow the application of different standards (IFRS) (e.g. financial instruments available for sale, held to maturity, derivative compound financial liabilities at fair value through profit or loss, etc.).

If these leases are classified - according to the contractual provisions – either as operating lease or as finance leases. Usually, if a contract has been classified - according to IAS 17 Leasing - as a finance lease acquire, then the same will be classified and the acquirer. However, there may be exceptions to this rule when the lease is subject to changes at the acquisition date. In these circumstances, the classification is based on the changes at the acquisition date. The same thing happens in an operating lease.

Identifiable assets acquired and liabilities assumed are evaluated at their fair values from the acquisition date except as clearly specified in IFRS 3 (Jones & Smith, 2012).

The difference between the engaged and the carrying will be allocated to the identifiable assets acquired and liabilities assumed so from the book values at the acquisition date, to obtain fair values at the acquisition date thereof (Schleicher, Tahoun & Walker, 2010).

The exceptions specified in IFRS 3 refers to the recognition or measurement principles. In other words, the acquirer will have to consider additional conditions for recognition than those mentioned above and in terms of value, at which assets and liabilities are recognized, it will be something other than their fair values at the date acquisition. These exceptions relate to:

1. **Contingencies**. The acquirer must recognize at the acquisition date a contingent liability assumed in a business combination if: a present obligation resulting from past events, and its fair value can be measured reliably. It is noted that inconsistent defined in IAS 37 Provisions, Contingent Liabilities and Contingent Assets, the acquirer recognizes a contingent liability assumed in a business combination at the acquisition date even if it is not likely to settle the obligation is required outflow incorporating economic benefits.
2. **Employee benefits**. Liabilities (or assets, if any) related to the acquirer's employee benefit liabilities are recognized at the acquisition date in accordance with IAS 19 Employee Benefits. These may include compensated absences, pensions, deferred compensation and other post-employment benefits.
3. **Income tax**. The acquirer shall recognize and measure at the acquisition date a claim or a deferred tax liability arising from the assets acquired and liabilities assumed in a business combination in accordance with IAS 12 Income Taxes. Also, potential tax effects of temporary differences and carry acquire that exist at the acquisition date or arising from the acquisition will be accounted for under IAS 12.
4. **Active compensation**. Sometimes the seller may provide contractual compensation acquirer for the outcome of a contingency or uncertainty related to all or part of a specific asset or liability. The acquirer will recognize an asset compensation, for example, where the vendor provides its contractual compensation for losses exceeding a certain value on a debt arising from a particular contingency. In other words acquirer has obtained a guarantee that the debt will not exceed a certain threshold. Asset compensation will be recognized at the same time offset element. The asset will be evaluated on the same basis as the element offset. Amounts that will not be collected will recognize an impairment loss.
5. **Assets held for sale**. If the entity has acquired assets classified as held for sale, the purchaser will evaluate these assets at fair value less costs to sell, according to IFRS 5 Non-current Assets Held for Sale and Discontinued Operations.

6. **Payment transactions based on shares**. If the acquirer is obliged to replace based payment transactions of the acquired shares through payment transactions based on new own shares, the fair value of the replacement is considered part of the consideration transferred in the business combination. If the acquirer is obliged to replace but voluntarily wish to do so, then the fair value is recognized as cost of replacing compensatory financial statements subsequent combination. It will take into account the provisions of IFRS 2 Share-based Payment.
7. **Rights ceded**. There may be times when - in a business combination - an acquirer can redeem a right that it previously awarded acquire to use one or more of the assets of the acquirer's recognized or unrecognized. A common example is the right to use the acquirer's trade name under a franchise agreement or the right to use the acquirer's technology under a technology licensing agreement. A reacquired right is an identifiable intangible asset that the acquirer recognizes separately from goodwill.
8. **Assets with uncertain cash flows.** Assets belonging to the acquired entity are measured at their fair values at the acquisition date. Any uncertainty about future cash flows are included in the measurement at fair values. In other words, the acquirer does not recognize a provision for impairment separately by contractual cash flows that are expected to be stranded on that date.

Regarding non-controlling interests (ICN) standard makes the following statement regarding the fair value at the acquisition date: acquirer may measure a non-controlling interest held in the acquire at fair value at the acquisition date; if available prices in an active market for shares - the acquirer can measure the fair value at the acquisition date of INC given these prices; if not available in an active market prices for shares - the acquirer shall measure the fair value at the acquisition date of INC using other valuation techniques; fair values per share of the acquirer's interest in the acquire and the non-controlling interest calculated per share may be different. It is possible that the main difference is the inclusion of a first control in the fair value per share of the acquirer's interest or, conversely, the inclusion of a discount for lack of control (also called reducing minority) in the fair value per share of interest in controlling.

Sum of the first three components (VJ of the consideration transferred, INC and VJ of acquisition of ownership interest held previously) is the default (VI) in the transaction.

Goodwill acquired as a result of a business combination is recognized as an asset. This asset is not subject to depreciation, instead being subject to impairment tests that are done yearly or more often if there are indications that it might be impaired. Testing for impairment is performed in accordance with IAS 36, Impairment of Assets.

The consideration transferred in a business combination be measured at fair value must be calculated as the sum of the fair values at the acquisition date of the assets transferred by the acquirer, the liabilities incurred by the acquirer to former owners of the acquire and Ownership issued acquirer. The consideration transferred may include cash, other assets, a business or a subsidiary of the acquirer, contingent consideration, liabilities incurred by the acquirer, equities ordinary or preference shares, options, warrants and shares members mutual entities.

Judgments that should be considered - for example - to identify the elements of the group purchased capacity assessment group purchased to generate outputs and impact assessment of the lack of any element on the ability of market participants to generate outflows group acquired must be applied to determine if the transaction is: an acquisition of the company; a purchase of assets.

It is assumed, usually, when goodwill is involved in the transaction, that it takes place a purchase undertaking. However, it is mandatory for a company to have goodwill (Chen, Tang, Jiang & Lin, 2010). A joint business is defined as a transaction or other event in which an acquirer obtains control of one or more businesses (Balachandran & Faff, 2015). After completion of the combined entity as transferee undertaking and acquire continues its existence as a separate legal entity.

SOLUTIONS AND RECOMMENDATIONS

On the acquisition date, the buyer (the acquiring entity) draws only the first component of the financial situations consolidated, respectively the consolidated position of the financial situations. In the content of this chapter, we are going to display from the practical perspective the elaboration method of the consolidated financial situations on a subsequent date, also called the reporting date compared to the acquisition date. According to the consolidation methodology presented in the previous chapter, the revenues and expenses of a subsidiary are included beginning with its date of acquisition, until the date where the control, exercised by the society mother, it ceases to exist, and the values which the subsidiary its counting on are the value of the assets and liabilities recognized in the consolidated financial situations of the society mother at the acquisition date.

In other words, the depreciation expenses recognized in the consolidated situation of the global result after the acquisition date will rely on the fair values of the related depreciated assets, recognized in the consolidated financial situations from the acquisition date. In this condition, a great attention must be paid over the calculation and allocation of the difference between the value involved in the transaction and the accounting values of the purchased assets and the assumed liabilities.

In the case of business combinations, it is recommended that accountancy users take into account two situations: acquisitions where it is recognized the commercial background or, less often, acquisitions in which the recognition of an earning takes place (they are also called acquisition with advantageous conditions.

The accounting values of the purchased assets and assumed liabilities will be adjusted for any difference that exists between the involved in the transaction value (IV) and accounting values of them such that fair values (FV) will be obtained on the acquisition date. The sum between: fair value of the transferred consideration, of the value of the interests that don't control, when it's not the case, and the fair value from the acquisition date of the participation in the previous equity, if the combination of businesses it's divided in stages, it represents the value involved in transaction (VI). The steps are:

Step 1: We determine the difference between the fair value (FV) and the accounting value (AV) on the acquisition date.

Step 2: We determine the difference between the involved value and accounting values.

Step 3: The determination of the commercial background or earning from consolidation.

If the difference is positive (IV>AV), then this difference is allocated between acquired identifiable assets and assumes liabilities such that, starting with their accounting values, the fair values from their acquisition date are obtained, and here there are two situations:

1.1 If IV is greater than FV, the excess is recognized as commercial background

1.2 If FV is greater than IV, then it is recognized as earning, and we consider this as being an acquisition under favorable conditions (FV>IV>AV).

If the difference is negative (IV<AV), then we call this an earning, and we consider this an acquisition under favorable conditions (AV>FV>IV).

The potential commercial background it is not depreciated, instead, it is tested for depreciation. If the commercial background it's depreciated, it will be considered as an expense.

Next, we will present four examples of determination and allocation of the difference between the involved value and the transaction and the accounting values, starting from four different hypotheses of the achievement of a subsidiary:

1. **Assumption 1:** IV>FV>AV, and the mother entity completely owns the subsidiary.

2. **Assumption 2:** IV>FV>AV, and the mother entity doesn't completely owns the subsidiary (here there are some minor interests)
3. **Assumption 3:** FV>IV>AV, and the mother entity doesn't completely owns the subsidiary.
4. **Assumption 4:** FV>AV>IV, and the mother entity doesn't completely owns the subsidiary.

The difference between the involved in the transaction value and the accounting values will be allocated in the purchased assets and assumed liabilities from the acquisition date in order to obtain the fair value of them. The excess is allocated to the commercial background. It is important to bear in mind that this table of allocation will be established only once, at the purchasing date, and will remain unchanged. The revenue and expenses of a subsidiary are included beginning with its date of acquisition and until the date when the mother society doesn't control anymore. It is important to know that the value of the assets and the liabilities from the acquisition date will affect the consolidated result.

When talking about the fixed assets that are not depreciable (land), the values that are reported by the subsidiary don't take into account of the fair values from the acquisition date. The difference between the accounting values and fair values from the business combination date will be reflected only in mother society and in the worksheet that is necessary to obtain the consolidated financial situations. This difference, however, doesn't make any of the objects of an adjustment because the land is not depreciable. Anyway, in the situation in which the land is not sold or it is noticed a temporary depreciation, we must make adjustments in the worksheet as well.

The commercial background registered as a consequence from the business combination won't be registered by any of the entities in the own individual financial situations. The commercial background will appear only in the consolidated financial situations of the mother society for an unlimited period of time.

Its value will be adjusted only if – a consequence of the depreciation test- we will notice depreciation. This depreciation will be registered as expenses, and there will be like a discount of the consolidated result. We observe that in the first year there is no depreciation, unlike the following years where the depreciation is present.

FUTURE RESEARCH DIRECTIONS

Very important is that those who investigate aspects of business combinations to set realistic goals. Top-managers of some of the largest companies in Canada and the United States recognized that goodwill measurement indicators are needed for asset management, knowledge of the company.

As with many challenges, such as efforts to conceptualization of the field, trying to measure goodwill; setting causal relations - effect, demonstrating the accuracy of proxies, it happens that many companies have an equity system its use in some individual indicators whose relevance is not fully justified.

It is therefore important to determine and establish relevant indicators, the group of them in specific categories (quantitative or qualitative aspects related to individual company's business - e.g. employees - or macro issues) and not i just put together, and also to assign each category a specific weight in calculating the final result.

Another challenge would be to extend and adapt this research to the specifics of different national economic systems, to generalize the relationship between business combination and company performance and other countries and industries, and not go on forever with examples and studies.

CONCLUSION

The results have proven that investors are already alerted to the reported information for the business combination. They understood that IFRS changes are important, even from the preliminary stage, these changes perceptions about the value of the group of companies and have an impact on investigative decisions in more than half of the managers who were in talks.

Societal groups must keep in mind that their efforts: to apply IFRS changes will be reported by investors - many managers consider confidentially management and consider discovery to be far too far. They also have a positive attitude about the high degree of transparency and comparability that IFRSs apply.

It may be a priority for a group's management team to maintain that confidentiality - such as the progress made in implementing IFRS, on the day-to-day business of societies, more special projects.

The expectations about the quality of the statements, and more of the reports from the end of the exercise, are high - especially where they come from within the group and the financial risks.

Suggestions by some commentators that investors would not understand the implications of the new financial reporting standards are also out of the market. Most managers report a reasonable confidentiality in their own understanding of the IFRS reporting of the companies they invest in.

Moreover, only a quarter have a "strong agreement of confidentiality", it is clear that investors will continue to ask companies to explain the full implications of the figures that are reflected in the consolidated annual financial statements made under IFRSs. However, this opinion is encouraging signs of the fact that the market sees it far. But at the same time, companies need to be criticized for complicity and to be careful about how to keep investors informed - in particular, the annual balance can provide more details and why not a few surprises.

Most of the managers interviewed are aware that they are well informed and understand the impact of IFRS. More than three quarters of them know the impact of IFRS on companies in their country and in a similar property are very or sufficiently confidential in terms of understanding the impacts on the companies they invest in.

This is an encouraging start and points to the fact that many companies have done a good job in explaining the investment community, what impact IFRSs have on consolidated statements. The current level of knowledge provides a good platform to help investors develop their own understanding - the best investigative decisions can be taken in great property are "very confidential "(currently only 12%) in understanding the impact of IFRS at that time, a quarter among them they admit that they need some things or do not need anything to make substantial progress.

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KEY TERMS AND DEFINITIONS

Accounting Estimates: Are often made under uncertainty in terms of determining their value as it involves the use of judgment. As a result, the risk of material misstatement is greater when these estimates are involved and in some cases the auditor may determine that the risk of material misstatement is greater, and it requires special attention in the audit.

Acquire: Is the undertaking over which control is obtained. The acquirer is the entity that obtains control. Determining the exact position of each entity acquiring or being acquired is important because only acquired entity's assets and liabilities are measured at their fair values at the acquisition date.

Equity: Total debts and owners' rights claimed for a specific period of time.

Fair Value: The amount at which an asset is bought or sold in an arm's-length transaction in which neither party is forced to act.

Goodwill: Are only active in combination with certain people in the business and, in most cases, a life indefinite. They generally cannot be alienated (sold), are lost with the departure (loss), and may be associated person and evaluated in conjunction with certain specific benefits of an employee who can be thought of as having a determinable life specific value if not provided in an individual employment contract.

Joint Business: Is defined as a transaction or other event in which an acquirer obtains control of one or more businesses. After completion of the combined entity as transferee undertaking and acquire continues its existence as a separate legal entity. In practice, some transactions sometimes called "true mergers" or "mergers between equal entities" are also business combinations.

Performance: The ability of an organization to exploit its environment to access scarce resources.

Chapter 13
The Role of Internal Controls in Corporate Governance Systems

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ABSTRACT

The recent scandals and corporate failures in the United States and in Europe have led to a renewed interest in research of corporate governance. The objective of this chapter was to explore the role of internal control in enhancing the corporate governance and supervise the functionality of the implementation of the corporate government principles. The results show that the internal control has a significant role in enhancing the corporate governance pillars in companies, and the successes of corporate governance requires compliance with all elements of internal control.

INTRODUCTION

Alongside governance and risk management, internal control is the third major component of corporate governance (Awais & Hussain, 2015). A good corporate government depends on risk management to understand the issues with which the organization is confronted and the internal control for fulfilling its objectives (Fadilah, 2013; Zikmund, 2000).

In practice, every organization wants to implement these three ideals, corporate governance, risk management and the internal control system, whereas internal audit is the key component of its supervision (Weygandt, Kimmel & Kieso, 2011).

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More specifically, corporate governance refers to the way in which the rights and responsibilities are distributed among the categories of participants in the company's activity, such as the board of directors, the managers, the shareholders and other groups of interest, also specifying how are decisions taken regarding the company's activity, how are strategic objectives defined, what are the means of fulfilment and how are the financial results monitored (Mensah, 2003).

Internal auditors, the same way as they must support the company for the identification and monitoring of risks that they face, they must also understand and supervise the functionality of the internal control system, which is the key element for the implementation of the corporate government principles (Cheng, 2008).

Because information is the most valuable resource and it is common knowledge by now that managers expect more from the internal auditors than just an opinion, the duty to foreshadow factors that can stimulate consolidation, development or the financial performance processes of the audited company cannot be denied (Aduda, Okiro & Omoro, 2015).

With a transparent reporting system you can create the necessary conditions to ensure the stability of markets and economic development, while a good organization of the internal audit department will be the key factor for securing the objectives of trading companies (Bhimani, 2008). Moreover, an internal audit adds value by the fact that it requires the execution of assurance and counselling missions (Dechow & Ge, 2006).

Considering the novelty of the internal audit and its importance as a form of independent control, in the drafting of this chapter, we considered that drawing up some financial statements in accordance with the International Accounting Standards followed by a quality financial audit, based on International Audit Standards, as well as the observance of the International Internal Audit Standards would improve the image of companies and the consequence would be attracting foreign investments which are crucial for economy.

BACKGROUND

The etymology of the word 'control' comes from the Latin phrase "contra roles", which means „confronting a duplicate document with the original" (Rankin, Stanton, McGowan, Ferlauto, & Tilling, 2012).

Semantically, control means "a permanent or periodical analysis of an activity, of a situation in order to follow its progress and take measures of improvement" (Elbannan, 2009). At the same time, control means a continuous moral and material supervision, such as the control of an activity, of a situation (Steinthórsdóttir, 2004).

From the point of view of its mission, control is an inherent component of management; it is a specific human activity that serves the management, third party business partners as well as the public authorities and even the population (Young, 2002).

Control has evolved and continues to evolve after the appearance of other patterns of control based on the environment where it is used and is, at its turn, in continuous movement, through the improvement of commercial relations and the permanent evolution of the market economy (Shah, Butt & Saeed, 2011).

This type of organization of the internal control system which is not specific to the planned economy has led managers to believe that the organization of control is benevolent and corroborated with the lack of any management responsibility, in the first years after 1989, it has weakened the effectiveness of the internal control system (Marlin & Geiger, 2012).

The community acquis in the field of internal control, recommended by EC, comprised the general principles of internationally and EUR accepted good practice (Brown & Caylor, 2004). The adequate manners of transposing them into the internal management and control systems are specific to each country, taking into account the constitutional, administrative, legal provisions specific to each culture and were a new approach of internal control (Abbott, Park & Parker, 2000).

Generally speaking the concept of control was given a limited connotation, namely, the control of transactions to see if they are compliant with the regulations in force (Carcello, 2002). However, in the context of implementation of the principles of good practice, according to the definition of control, the term must part with this restricted meaning and acquire a new structure on the basis of the principles of corporate governance recommended by the European Commission (Hoitash, Hoitash & Bedard, 2009).

The international practice recommends outlining an internal control system and an internal audit structure as part of the coordination of the general management, capable of managing the risks that entities face (Xie, Davidson & DaDalt, 2003). Moreover, it requires the implementation of the internal audit within organizations and the clear division of its activities from those of internal control (Cho, Ran & Kim, 2003).

The optimal operation of entities on the basis of an integrated internal control framework requires the existence of an adequate control environment which promotes ethical values, is transparent, accepts good practice standards and establishes responsibilities in the spirit of the strategies and policies approved by the senior management (Bar-Yosef & Prencipe, 2011).

The managerial accountability exercised by the management of an organization requires that, within the limits of internal and external constraints, for the effective, efficient and legal fulfilment of the objectives defined, to communicate and be responsible for the non-fulfilment of the managerial duties according to the type of legal responsibility (Johnstone, Li & Rupley, 2011).

For the organization of the managerial activity, managers must take into account the following main principles: the general manager / the applicant is responsible for the fulfilment of the entity's objectives; the general manager / the applicant can delegate its authority without being absolved from the general responsibility; the managerial responsibility does not exist without the adequate authority; responsibility requires transparency and liability; the control system must be based on controls and corrective measures within the entity, but also on external controls (Todorovic, 2013).

To ensure the implementation of the managerial control system, a working group is created that comprises the heads of the functional departments within the entity, respectively the line management, for the coordination of a member of the Board (Clarke, 2004).

Its activity is counselled and monitored by the head of the internal audit department, who is not a member of the working group (Aguilera & Jackson, 2003).

A board of directors that has a well-implemented, controlled and developed risk assessment strategy represents the foundation for defining a risk tolerance and is also intended for all managers and employees of the organization (Cheng, 2008).

The risk appetite can be identified by several means based on many variables such as financial, time, quality etc. variables (Hay, Knechel & Wong, 2004). The risk appetite must be identified before the appearance of the risk, because otherwise we will basically accept a deviation that occurred (Monks & Minow, 2004).

The reliable solution for risk management is finding a balance in which the existing risk – the residual risk – is equal with the risk that we are ready to tolerate – the risk appetite (Young, Kim, Black, & Jang, 2000).

Because the resources available in the risk management process are limited and the risks cannot be avoided, each organization must take all necessary accepted measures, considered tolerable for the organization, respectively their risk appetite.

THE ROLE OF INTERNAL CONTROLS IN CORPORATE GOVERNANCE SYSTEM

Internal control is relevant for the entire institution as a whole and for each department (Aguilera & Jackson, 2003). While the internal control system is relevant and applicable to all institutions, management's implementation varies greatly depending on the nature of the institution and depends on a number of specific factors. These factors include: the organizational structure, the nature / risk profile, the environment of activity, the size and complexity of the activities, and the applicable regulatory system. Due to the specific situation of the institution, management considers a number of options regarding the complexity of the processes and methodologies used to apply the components of the internal control system.

The control environment includes the general attitude, awareness and measures taken by management and those charged with governance of the internal control system and its importance within the entity (Beiner, Drobetz, Schmid, & Zimmerman, 2004). The control environment determines the tone of the organization, influencing staff awareness. It is the basis of all other components of internal control, ensuring a discipline within the organization to be respected and a structure of the entity so that the internal control system can be effectively applied. In addition, the internal control environment is an effective tool in preventing corruption and fraud.

The purpose of entity risk management is to enable management to identify the element of uncertainty regarding the achievement of the objectives set and the associated risk, and to have the opportunity to increase the capacity to add value, provide more efficient, economical and effective services, and maintain value account such as equity and justice (Daily, Dalton & Cannella, 2003). The risk can be considered negative in the sense of uncertainty, threat, obstruction or positively, as an opportunity.

Given the economic events in recent years, the most important challenge will be for organizations to find a balance between risk, costs and value, given that a significant benefit is to have as many results as possible with few resources, clear identification of the key risks faced by entities (Johnstone, Li & Rupley, 2011). In this context, the internal control must be effective, avoid additional costs, and save material, financial and human resources. In fact, there may also be a situation to design a good internal control system but it is misunderstood and put into practice by those involved in that entity (wrongly trained personnel with regard to the implementation of internal control) or formally dealt with.

Due to the fact that the improvement of the internal control can be done with the help of the internal audit, and the internal control is universal, then we can state that the internal audit is universal (Todorovic, 2013). The internal audit function has become a function of managerial assistance through which internal auditors help managers at all levels to master the other functions and activities.

The internal auditor must document the issues important for providing evidence to support the audit opinion and evidence attesting the execution of the audit in accordance with the law (Fadilah, 2013). Documentation means the materials (the documents) prepared by and for the auditor, or acquired and kept by the auditor during the audit.

The auditor must include in the documents information regarding the planning of the audit activity, the nature, duration and extent of the audit procedures, the results of this activity and the conclusions drawn from the audit evidence obtained (Bhimani, 2008). The documents must contain the auditor's opinion regarding the significant elements that require the exercise of a professional reasoning, together with the conclusions drawn regarding the analyzed issue. In the fields that involve difficult matters of principle or judgment, the documents will contain the relevant facts known by the auditor at the time of outlining the conclusions.

In case of recurrent audit activities, certain files with documents can be considered permanent audit files and updated with new permanent information, unlike the current audit files that contain information regarding a single audit.

The internal auditors must document the relevant information in order to justify the conclusions and the results of the mission (Dechow & Ge, 2006). The documents used for the documentation of the audit activity must be drawn up by the internal auditor and revised by the management of the internal audit. These documents must include the information obtained and the analyses made and must confirm the findings and the audit recommendations that will be reported.

The organization, elaboration and content of audit files are regulated according to the mission (Brown & Caylor, 2004). The internal auditors compile these files with the help of the management and of the decisional bodies for which they make the provisions. The content of these files is estimated to be generally confidential and can be based on facts and on opinions. The access to the audit files can be requested by third parties through various procedures, among which we can list criminal investigations, disputes, tax controls, controls of regulatory courts, examination of public procurements and controls made at the competent professions for self-regulation. Theoretically, all files not covered by professional secrecy between the attorney and its client can be communicated in the event of legal actions. For other procedures, the issue of access to files is less obvious.

The business file can be submitted on paper, on cassette, on disk in film format or on another recording media (Marlin & Geiger, 2012). If the business file is not on paper, a spare copy should also be kept. In case of an audit of financial statements, the documents must prove that they are consistent with the accounting records.

The internal audit officer must set the rules that must be followed for the documents, adjusted rules for each type of mission (Elbannan, 2009). The normalization of legal files, for example the normalization of questionnaires and audit programs can improve the efficiency of a mission and can facilitate the delegation of tasks. Certain business files can be considered permanent files. These files contain permanent information.

The control of audit files involves the documents of the mission. Generally, they must remain under the control of the internal audit and only the authorized staff must have access to them; the management and the other members of the entity can request the access to the documents of the mission. This access may be necessary to corroborate or explain the findings and recommendations of the mission or to use the documents of a mission for other purposes. The internal audit officer must authorize these requests in advance; in practice, the external and internal auditors send the business files to one another. The access given to external auditors must be approved by the internal audit officer; there are cases when the requests of access to the business files and to the reports are made by persons outside the entity, other than external auditors. Before accepting the supply of the requested documentation, the internal audit officer must obtain the management's approval and/or, as necessary, the legal counselor's approval.

Every mission must end with a file comprising the most important business documents, the evidence behind the assertions made in the report being crucial (Bar-Yosef & Prencipe, 2011). The business documents must be written and have a standard predefined format, a reference number that coincides with the documents from the audit file, the correspondence with the number of the mission from the internal audit plan etc. The documents must contain mandatory information: the name of the entity, the name of the audited service; the name of the auditor, the date; whether it refers to tests: objectives, the structure of tests, the documents or the transactions reviewed, the results and interpretation etc.

The internal audit process should be carried out periodically, step by step, and take into account all aspects, not just the pleasant things (Zikmund, 2000). It has to be organized and planned so as to improve internal control and management processes. The audit is there to help line management improve its functional management and risk analysis.

The internal audit findings and recommendations are useful to the management line in the audited areas, in particular with regard to potential improvements in the risk management process, and which the auditor will evaluate again on the occasion of his return, which will ensure and guarantee a plus of value to the organization.

The management's evolution comprised methods of organization from merely theoretical levels to very practical levels, forms appeared and applied between them which proved the validity of some and invalidated the existence of others.

Moreover, the approach of the internal audit function must contain the organization of the internal audit department as well as the organization of labor and the management of the competences and of the resources needed for performing the internal audit.

From the analysis of the evolution of the internal audit function to the present, we can appreciate the following elements of involvement in the life of the audited entity, namely: counseling given to the manager; aid to employees without judging them; independence and total objectivity of auditors.

It is unanimously accepted that the internal auditor advises, assists, recommends, but does not decide, his obligation to be a means to improve the control each manager has on his activities and those in coordination, in order to achieve the objectives of the control internal (Young, 2002).

Moreover, in an entity where the internal audit is part of the culture of the organization, it is accepted with interest, but in an entity experiencing significant potential risks, with the lack of compliance with the underlying regulations, with low effectiveness and fragility due to the misappropriation of funds, the disappearance of assets or fraud, it is obvious that the respective manager will be judged, appreciated, considered according to the findings of the internal auditor.

A control environment can enhance the effectiveness of the internal audit if it is part of the culture of the organization because it contributed to the exchange of information, favors cooperation during the working process, allows the elaboration and collection of mutually interesting and easy to apply proposals.

The communication is based on a well-defined plan whose purpose is to know the function, to understand it and to act upon the control environment (Daily, Dalton & Cannella, 2003). The targets must be highlighted in the communication plan, the objectives must be confronted with the expectations and the messages must be clearly defined per categories of recipients, the choice of the most appropriate communication media.

Effectiveness is assessed through the internal audit quality control plan, assessments that can be internal and external, according to the Qualification rule 1300 – Insurance and quality improvement program (Cho, Ran & Kim, 2003).

The head of the internal audit is responsible for the internal assessments, who also supervises the auditors' competence, the quality of communication, the observance of the audit methodology and the rational choice of investigation instruments, the quality and pertinence of findings and observations, the quality of the audit report and the observance of the terms, the realism of recommendations, their applicability and effectiveness.

External assessments also include an audit of the audit which is conducted by audit revisions which mainly examines: the profile and competence of auditors, the exhaustiveness of the audit plan and its observance, the implementation of the internal audit standards, the methodology, the quality of audit reports and the application of recommendations, the quality of the internal audit manual and of the audit guides, the assessment of the internal audit by the management.

The external assessment can also be conducted through external auditors, by "exchanging experience" with auditors from similar entities from non-competing sectors, or by using a qualified team outside the audit organization once every five years (Aguilera & Jackson, 2003).

Regardless of the solution chosen, the Qualification rule 1320 – Reports regarding the quality program must be observed, which regulates that "The internal audit officer must communicate the results of the external assessments to the Board" (Cho, Ran & Kim, 2003).

Effectiveness is measured through several instruments: indicators, benchmarking and opinion poll. The indicators are those that give the image of appreciation of the activity and of the quality, are essentially a means for enhancing the effectiveness and are calculated on three categories: business indicators, quality indicators and cost indicators.

For example, Benchmarking is the use of qualitative and quantitative criteria to understand where you stand among the members of the same profession, the final purpose of the measurement is to identify the best practices in order to obtain a higher effectiveness, a sort of standardization of methods, of procedures and work rules that provide a high effectiveness.

This practice was developed by the International Institute of Internal Audit under the name of "Global Auditing Information Network" and provides the most popular professional practices to auditors, which can lead to a low interest in research, negligence and a lower spirit of initiative and consideration of the environment (Cho, Ran & Kim, 2003).

The survey is another important means of measuring the effectiveness of the internal audit department, however it must be considered very sensitive if it is not developed by specialists, because it can give irrelevant or even contradictory results that can also influence the judgment of beneficiaries.

Normally, for justified reasons, the survey is a good instrument for collecting useful information and data for the internal audit concerning the relationship with the management, the level of understanding of the management regarding the internal audit.

The audit committee is the level reached after an evolution of more than one hundred years, but which has acquired a higher importance at the end of the twentieth century, when the role of movements in business morale came to surface.

The audit committee acquired responsibilities for guaranteeing the quality of accounts and reports to shareholders, remunerations and appointments of directors, ensuring the shareholders of the independence of the opinions formulated (Abbott, Park & Parker, 2000).

The practice in many countries has revealed the need of existence of audit committees, but we need to clarify two essential elements: the scope of audit committees; the hierarchical position of the internal audit (Monks & Minow, 2004).

The scope is not defined by any professional rule, it is not perceived as being rigorously encountered, but it refers to the effectiveness of the management and resources engaged, to the fact that the processes of the entity are correctly accounted, keeping under control the risks related to conflicts of interests, a free evolution of the entity, unobstructed by the measures of the management.

The hierarchical positioning of the internal audit in terms of the subordination was and is a subject of debate that does not have a unique solution, but proposes variants that can be appropriate or not depending on several elements related to the organizational culture.

Studies and experience showed that an audit committee is consulted, has a privileged relationship with shareholders and with (external) financial auditors.

In France, for example, to overcome the deadlock, the internal control committee was developed which also handles the relationship with the management and its concerns, as well as with internal auditors.

At first sight it appears to be confusion, but the internal audit works for all the functions of the entity, hierarchically positioned at the general division, but also acts according to the guidance of the audit committee.

In the next years, the effectiveness of these organizations will probably be measured more precisely, and the involvement of the audit committee in the corporate governance will be better structured and characterized.

SOLUTIONS AND RECOMMENDATIONS

It is important that the audit files intended for the public to be well prepared. For this purpose, we recommend following the steps below: only the requested documents will be made public. As a general rule, audit files containing opinions and recommendations are not communicated. The documents that disclose the argumentation or the strategies of lawyers are generally covered by professional secrecy and their transmission is not crucial; only the copies must be sent, the original must be kept, especially if the documents were drawn up by pencil. If the tribunal requests the original, the internal audit must keep a copy; marking each document with "confidential" and a notation specifying that any disclosure to another person must be the object of a prior approval.

FUTURE RESEARCH DIRECTIONS

Understanding the control environment, the characteristics of the information system as a whole is an important and decisive step for auditors to determine the degree of credibility of the system itself and the information it provides. The overall objective and audit process in a computerized environment does not differ structurally from classical steps and processes. Exceptions only arise from the need for the auditor to know the existing computer system, understand the computer applications used in automatic data processing, and how it satisfies the user's requirements.

An exhaustive audit of internal control is impossible to achieve and, in essence, is not a goal of the audit process. Selective testing - by sampling - is the frequently encountered technique for assessing internal control as well as for detailed testing of account and transaction values. The auditor will examine the supporting evidence that will support the values and disclosures in the financial statements, based on an assessment of the accounting principles, accounting policies and estimates made by the entity's management to present the financial statements. The test activity should, however, start from the presumption of completeness, integrity and accuracy of the data to be audited. This is ensured by an understanding of the computerized environment and an assessment of internal control at the level of the information system. Although apparently the previously mentioned presumption can be considered as meaningless, practice has demonstrated serious incidents (fraud, data or application alteration, permanent loss of data in a system) that may occur in a computerized environment where the magnitude risks takes another dimension.

Practical reality implies addressing the risk through three factors: threats seen as events or activities (generally outside the audited system) that can affect the vulnerabilities existing in any system, thus causing the impact that is considered to be a short-, medium- long supported by the organization.

Thus, the audit practice does not distinguish between the two types of control (internal and general) because in reality they complement one another and the assessment of this control will give the financial auditor confidence in the data to be audited.

Also today, in a computerized era where the complexity of computerized accounting systems and the volume of transactions have increased significantly, the need for computer assisted auditing techniques is recognized to allow for an increase in the efficiency of the audit engagement.

CONCLUSION

Internal Auditor is a manager's support function to enable them to better manage their activities. The assistance, counseling component attached to the internal audit clearly distinguishes it from any control or inspection action and is unanimously recognized as having further evolving tendencies.

The professionalism of the internal auditor is the art and the way to give value to the instruments and techniques used, such as rules, procedures, instructions, information systems, organizational types, etc., representing all the control activities used by the manager the institution or the manager of a job, recognized by the specialists as internal control.

The role of the internal auditor is to assist the manager for the successive practical approaches already developed and to analyze the whole to contribute to improving the internal control and work system with more security and efficiency.

The complex complexity of economic activities emphasizes the need for evolving accounting and audit tools to respond to the hunger of relevant user information. Such a responsibility cannot be achieved by classical audit techniques alone. Alliance with computer assisted auditing techniques is natural and beneficial to audit purposes. The symbiosis between audit and information technology was predictable and beneficial.

In conclusion, there are a lot of factors that are not under the direct influence of the managerial decision or the design of products or services within the entity - human error, judgment errors, wrong decisions, indiscipline or bad will. Therefore, a reasonable and flexible control system, which can change according to reality, succeeds, not in absolute terms, but within certain limits, to ensure the achievement of managerial objectives with greater probability and in better conditions.

According with same authors effective internal control system increases good corporate governance since it is a built-in part of the management process (i.e., plan, organize, direct, and control). Internal control keeps an organization on course toward its objectives and the achievement of its mission, and minimizes surprises along the way.

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KEY TERMS AND DEFINITIONS

Audit Committee: Committee of responsible for oversight of the financial reporting process, selection of the independent auditor, and receipt of audit results both internal and external.

Auditing: Systematic process of objectively obtaining and evaluating statements about economic actions and events in order to assess the degree of compliance of these statements with pre-established criteria and to communicate results to interested users.

Board of Directors: Group of persons elected by the shareholders of a corporation to govern and manage the affairs of the company.

Corporate Governance: Set of measures taken within the social entity that is an enterprise to favor the economic agents to take part in the productive process, in order to generate some organizational surplus, and to set up a fair distribution between the partners, taking into consideration what they have brought to the organization.

Financial Performance: Level of performance of a business over a specified period of time, expressed in terms of overall profits and losses during that time.

Internal Control: Process which providing reasonable certainty regarding the achievement of the objectives of efficiency and effectiveness of operating activities, reliability of accounting information, compliance with laws and regulations.

Stakeholder: Any group or individual who can affect or is affected by the achievement of the organization's objectives.

Chapter 14
Information Security Risk Management in the European Union

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ABSTRACT

Currently the organization's risk management covers a wider range of risks, especially operational risks, reputation risks to the organization, and more recently, strategic risks. Moreover, within a growing number of organizations, responsibilities associated with risk management are assumed by the top management, which generally coordinates the teams of specialists directly responsible for monitoring the risks and the risk handling measures. This chapter focuses on how to implement an approach to reduce the identified risks to the information conveyed through computer systems and communications. In additional, it presents EU regulations relevant to the analysis and risk management information security.

INTRODUCTION

Risk management provides a clear and structured approach to identify organizational risks (Gandino, Celozzi & Rebaudengo, 2017; Stepchenko & Voronova, 2015). A clear understanding of the risks enables organizations to measure and prioritize them in order to be able to adopt the most appropriate measures to mitigate adverse

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effects on the objectives set in addition, development of a risk management process has other benefits on organizations, such as: save resources: time, assets, income, property and personnel are valuable resources that can be properly managed if we take into account the results of risk analysis processes; protecting the reputation and public image of the organization; preventing or reducing legal issues and increased stability of the organization; protecting the population against various dangers; protecting the environment; increasing training capacity for different situations; clearly define insurance needs (Enagi & Ochoche, 2013).

An effective risk management does not eliminate the risk entirely (Andress, 2003). However, a practical and effective operational risk management demonstrates that the organization is making efforts to minimize or prevent losses, which brings benefits in terms of insurers (Barton, Tejay, Lane & Terrell, 2016).

On the other hand, there are organizations seeking maximize the benefits of modern technologies such as cloud computing, service oriented architectures, calling for it to external entities (Winkler, 2010). Given that the organization typically has no control over how external entity performing the analysis and handling of information security risks, additional risks may concerns the organization (Karim, 2007).

In addition to the impact of organizational culture on perspective approach to risk management within the organization, there may be cultural elements in the relationship between organizations (Fischbacher-Smith, 2016). When several organizations are working together to fulfill common objectives might appear different approaches that can lead to different risk management strategies, which would create new risks and determine the tendency to accept more readily the risks (Arukonda & Sinha, 2015).

The strategy of the risk acceptancy implies the loss acceptancy, if they appear (Collins & McCombie, 2012). This strategy is viable for low risk where measures to reduce the risk or insurance in case of injury are more costly in time than the potential loss (Hadžiosmanović, Bolzoni & Hartel, 2012). All risks that are not avoided or transferred should be reduced or accepted as such (Landoll, 2010). Also in this category includes risks that are so large or catastrophic that either cannot be made to cover their insurance or insurance premiums would be infeasible. An example is the war situation for the goods and risks are not insured. Risk can be accepted if the likelihood of major losses is very small or if the cost of insurance with higher coverage is very high and can cause problems in achieving the organization's objectives (Eriksson & Kovalainen, 2015).

Most often, organizations adopt combined strategies for addressing the risks identified in the risk analysis stage security (Karanja, 2017). In dealing with risks to information conveyed through information and communication systems, the predominant strategy is to determine the implementation of measures to reduce risks so as to ensure the objectives of information security - confidentiality, integrity, availability, authenticity and non-repudiation - in order to fulfill properly the organization's mission. For this reason, this chapter focus on how to implement an approach to reduce the identified risks to the information conveyed through computer systems and communications. In additional, it presents EU regulations relevant to the analysis and risk management information security.

BACKGROUND

Organizational culture refers to the values, beliefs and norms that influence the behavior and actions of both managers and the members of each organization (Sarabi, Naghizadeh, Liu & Liu, 2016). Organizational culture determines, in fact, how the activities are carried can explain why certain events occur in the organization (Norris, 2001).

Between organizational culture and how the organization responds to various threats from internal and external environment are a direct and undeniable (Hiller & Russel, 2013). However, organizational culture determines the behavior of the organization against any short-term benefits, long term, can cause losses. Risk Management Strategy is undoubtedly influenced by the organizational culture (Coltman, Tallon, Sharma & Queiroz, 2015). If risk management strategy information security is not correlated with organizational culture is difficult or, most often unenforceable.

Therefore, recognition and acceptance of the significant influence that organizational culture has on managerial decisions on the approach to information security risk is a key factor in enabling effective risk management process (Agrawal & Tapaswi, 2017). However, understanding the impact that organizational culture has on treatment programs for risk analysis and information security is important given the fact that these processes may involve major changes throughout the organization these changes must be managed effectively and understanding culture embedded in an organization plays an important role in bringing about the changes that affect the entire organization (Gaidelys & Valodkiene, 2011).

Implement processes analysis, treatment and monitoring of information security risks requires a major change throughout the organization (Hong, Kim & Cho, 2010). This change involves the alignment of personnel, processes and organizational culture with the new objectives of the organization, strategy and approach to risk communication mechanisms for risk-related information between the entities concerned (Malatras, Geneiatakis & Vakalis, 2016). To effectively manage these changes, organizations can use the considerations of organizational culture as a key component in their strategic thinking and decision-making processes such as strategy development approach for risk (Smith, 2005). If the manager is aware of the importance of organizational culture has increased opportunities to achieve the organization's strategic objectives through proper risk management.

An essential activity throughout the run in the security risk management is assessing the potential of a possible attack (Yami, Castaldo, Dagnino & Le Roy, 2010). A fair assessment leads to both coherent and effective implementation of security measures, which constitute a unified and convergent (Hong & Thong, 2013). Otherwise, we can find in one of the following: threats that attack potential are undervalued, leading to gaps in the security system in place and increase information security risks; threats that attack potential is overstated, resulting in an overall design and implementation of security measures far beyond the actual requirements (Singer & Friedman, 2014).

This has negative implications on both the organization's budget and perhaps surprisingly, the security of the information itself (Kesan & Hayes, 2012). When staff are required to very restrictive, unnecessary information management process, on the one hand decreases the efficiency of his work and, on the other hand, is tempted to breach security to be able to operate the easiest (Campbell, Kay & Avison, 2005).

THE INFORMATION SECURITY RISK MANAGEMENT IN THE EUROPEAN UNION

As the North - Atlantic, the European Union there is a constant concern for information security, interest manifested by a continuous process of updating and completing the regulatory framework and building structures to ensure that goal line responsibilities (Broadbent & Schaffner, 2016). Compared with the concerns registered in NATO, where the European Union there is a diversification of these concerns, in the sense that it attaches particular interest not only classified information (which, if the Alliance were the subject of major concern, given their weight predominant), and unclassified information, but with different degrees of sensitivity, such as information of the personal data of commercial and even public information, but require attention in terms of ensuring the integrity and availability (Chen, Ge & Xie, 2015).

From this perspective, the EU there is a broad framework that addresses information security in each of these laws issues in information security risk analysis are treated more or less detailed, but in a unitary. Table 1 illustrates the regulatory framework for data protection in the European Union with the focus on how it is dealt with information security risk analysis.

A European structure that has key responsibilities in determining courses of action regarding the security of information and principles underlying this process is the European Network and Information Security (European Network and Information Security Agency - ENISA). ENISA was established to develop a culture of safety by ensuring a high and effective level of network and information security. To achieve

Table 1. EU regulations relevant to the analysis and risk management information security

No	Normative act	Treatment of risk analysis
	Privacy / Right to privacy	
1	Directive 95/46 / EC of the European Parliament and of the Council of 24 October 1995 on the protection of citizens with regard to the processing of personal data and on the free movement of such data	Any activity involving the processing of personal data must be preceded by a risk analysis in order to determine the implications for the right to privacy and to determine appropriate technical, legal and organizational measures to protect such data. Protective measures must be in line with the level of sensitivity of the information.
2	Regulation (EC) No 45/2001 of the European Parliament and of the Council of 18 December 2000 on the protection of citizens with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data	Internal regulation which is an application of the above-mentioned directive principle. It provides that any processing of personal data by Community bodies is subject to a risk analysis process that sets out the confidentiality requirements and technical, organizational and legal measures to ensure the security of such data.
3	Commission Decision of 27 December 2004 amending Decision 2001/497 / EC on the introduction of an alternative set of standard contractual clauses for the transfer of personal data to third States.	The Decision provides for the need to carry out a risk analysis process on personal data before it is transferred to third countries. At the same time, it is necessary to ensure that the recipient State takes all necessary measures to ensure adequate data protection. Furthermore, it is foreseen that the data recipient and the processor are obliged to accept the security audit carried out by the Community structures.
4	Directive 2002/58 / EC of the European Parliament and of the Council of 24 October 1995 concerning the processing of personal data and the protection of the right to privacy in the electronic communications sector (Directive on privacy and electronic communications)	The Directive provides that any public service provider of electronic communications services should take legal, technical and organizational measures to ensure the security of the services it provides. These processes should be based on a structured risk analysis of services and information. It is worth noting that this act goes beyond the previous provisions on the protection of personal data. In addition, the service provider is required to inform its customers of the risks of a security breach and to take the necessary steps to prevent such breaches. At the same time, they must notify customers of the cost of any security breach.
	National security	
5	Directive 2006/24 / EC of the European Parliament and of the Council of 15 March 2006 on the retention of data generated or processed in the course of providing electronic communications or public communications networks.	The Directive requires that providers of public telecommunications services retain certain communications data, according to national regulations, for a specific period under specific conditions in accordance with specific security requirements. Providers must allow access to these data to competent authorities, ensure data quality and security, implement appropriate organizational, legal or technical measures, ensure data access control, prevent unauthorized access, and ensure that stored data Are properly destroyed when they are no longer required or the period of retention has expired.
6	Council Directive 2008/114 / EC of 8 December 2008 on the identification and designation of European Critical Infrastructures and the analysis of the need to improve their level of protection.	The directive requires Member States to identify critical infrastructures on their territory. Both the identification process and the design and implementation of the protection measures must be based on a structured risk analysis process.
	Civil and criminal law	
7	Council Framework Decision 2005/222 / JHA of 24 February 2005 on attacks against information systems	In addition to defining a number of threats to IT systems, the decision is relevant to the risk analysis process by including provisions on the obligation of organizations to implement and monitor adequately security measures to prevent these threats materializing.

continued on following page

Table 1. Continued

No	Normative act	Treatment of risk analysis
8	Directive 2009/140 / EC of the European Parliament and of the Council of 25 November 2009 amending Directive 2002/21 / EC on a common regulatory framework for electronic communications networks and services, 2002/19 / EC on access to, and interconnection of, Communications and associated facilities, and 2002/20 / EC authorization of communications services.	The Directive imposes certain obligations on information management for providers of public communications networks or publicly available electronic communications services. Suppliers must collect and retain the necessary information to demonstrate their compliance with the applicable regulations, including financial data. To this end, providers must implement a risk analysis process to ensure that the data are reliable, can not be corrupted, it may be made available to the competent authorities upon their request that records of access to such data may be kept.
	E-business	
9	Directive 2003/98 / EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information.	The Directive is relevant to the risk analysis process from at least two perspectives: In determining whether a document is likely to be re-used, the public controlling organization must analyse the risk of intellectual property dissemination to a third party as well as the potential risks to the security and defence policy. Secondly, when documents become available for re-use, a re-analysis of the exclusivity provisions, which could be a barrier to re-use, should be made.
	Classified information	
10	EU Council Decision 2011/292 / EU on Classified Information Security Rules of the European Union (EUCI)	The risk to Endorsed for Unclassified Cryptographic Information (EUCI) is managed as a process. This process aims at determining known security risks, defining security measures to reduce these risks to an acceptable level in accordance with the basic principles and minimum security standards set out in this Decision and applying these measures in line with the concept of in-depth defense. The effectiveness of these measures is assessed on a permanent basis. Security measures to protect EUCI during their lifecycle are commensurate, in particular, with their security classification, the shape and volume of information or materials, the location and construction of EUCI premises and the local threat assessment of bad activities -intentional and / or criminal, including spying, sabotage, and terrorism. Emergency plans take into account the need to protect EUCI in emergency situations to prevent unauthorized access, disclosure or loss of integrity or availability. Prevention and recovery measures to minimize the impact of major errors or incidents during EUCI management and conservation are included in Business Continuity Plans.

these objectives, the Agency contributes to increasing the capacity of the European Community, the Member States and the business community to prevent, address and respond to the problems identified in computer networks. ENISA has been a constant concern in identifying methods of risk analysis information security. In 2006, has developed an inventory of these methods at the international level. During the years 2007 - 2008 will continue to deepen this analysis in a structured program.

Recognizing that risk management information security is essential elements to increase the resilience of infrastructure technology ICT in the work program of ENISA 2010 provided investigate the preparedness of Member States on the implementation of the process of risk management address security. The main objectives of this component: identifying national security risk management information from EU Member States; identifying the level of maturity and preparation for implementation of the risk management process; identification of the entities involved in the process of risk management information security.

Following this action, ENISA has prepared a consolidated report, released in April 2011. Ratio illustrates data obtained from the ENISA working group on the level of training in the development process of risk management information security in four states: two small states, a state of medium size, a large state (forms included in the report). The results of this study are shown in Table 2.

Table 2. The level of training on the security risks management of information transmitted via computer networks, within four EU countries

Process	Activities	Country				Average per activity
		A	B	C	D	
P1: Defining the policies regarding the risk management	A1: Setting the vision	3,83	1,83	2,5	4,50	**3,17**
	A2: Setting the form of organizing the information security risk management process	2,83	2,50	2,5	4,50	**3,08**
P2: Cooperation and assistance regarding the implementation	A3: Assistance and regulations	2,50	2,50	2,5	4,00	**2,88**
	A4: Promoting security awareness	2,83	2,00	3,5	3,00	**2,83**
	A5: Providing necessary information	2,67	2,00	2,5	5,00	**3,04**
	A6: Promoting standards regarding the information security risk management	1,33	2,83	3	5,00	**3,04**
	A7: Encouragement of collaborations	2,17	2,00	2,5	5,00	**2,92**
	A8:Effectiveness monitoring	1,33	2,00	2,5	3,00	**2,21**
P3: Revizuire, Re-analizare şi Raportare	A9: Analyzing errors and incidents	2,33	2,67	2,5	3,50	**2,75**
	A10: Analyzing efficiency	1,67	2,00	2	4,00	**2,42**
	A11: Reporting the level of training in the field of information security risk management	1,33	2,00	1,5	4,50	**2,33**
	A12:Suggesting improvements	1,50	2,00	1,5	4,00	**2,25**
	Country average:	**2,18**	**2,18**	**2,42**	**4,17**	

On the other hand, at the level of the European Union (EU Council, European Commission) methodology for analyzing information security risk accepted in determining security requirements for the protection of EU classified information is Expression of Needs and Identification of Security Objectives (EBIOS) methodology. This methodology consists of a complex set of guidance, plus a dedicated software application for the security management of communication and information systems. Originally developed by the French government, the methodology is at present optimized by the assistance of other EU Member States. EBIOS gives managers a consistent high level approach to the risk, enabling the creation of a comprehensive and coherent vision, useful for managerial decision making. EBIOS stimulates dialogue between the project or organization managers and the managers responsible for cyber-security circulated within the project and the organization. In this way, the methodology helps to streamline the process of communication and increase security culture of decision-makers.

The approach to information security risk analysis in terms of EBIOS methodology comprises five stages: establishing the context, determining security needs, threat analysis, identifying security objectives and identify security requirements.

Stage 1 is to analyze the context, in terms of establishing dependency between the processes within the organization and the correct functioning of the computer systems (contribution to global assets, clearly defining the perimeters of these systems, decomposition in relevant flows and functions). In the first stage methodology identifies three main steps.

Step 1.1 is to describe the organization that hosts the computer system: identify the organization, the main objectives of the organization, the mission of the organization, its values, functional structure, organization-specific constraints, legal regulations and internal rules, functional description of the computer system(s) within organization.

Step 1.2 is to describe the target system: description of the project / program objectives, responsibilities, identification of the main features / information relevant to the mission of the organization, the functional description of the system, identification of subsystems, formulate working hypotheses, identifying constraints.

Step 1.3 identifying the system components: hardware, software components, networks, personnel, locations. Building a matrix, function / entity, information / entity.

Both security needs analysis and threat analysis is conducted in stages 2 and 3, in a strong dichotomy that emphasizes their conflicting nature.

Stage 2 – Identifying the security needs – The methodology includes four steps.

Step 2.1 is to identify security requirements: availability, integrity, confidentiality, anonymity, audit, control.

In Step 2.2 methodology requires defining scales on which will run further security risk analysis, such as: 0 - public information, 1 - restricted information; 2 - confidential information; 3 - secret information.

Step 2.3 is to estimate the impact that the materialization of a threat can have on information relevant to the organization, such as service interruption, failure to provide services that the organization offers, damage the organization's image, internal distrust of the communication and information systems and, impairment of the security culture, impairment of normal internal operation, increased domestic charges, illegal actions, failure to undertake legal tasks, impaired staff / users, threats to staff / users within the organization.

Step 2.4 consists in determining security needs (Table 3).

Security needs are assessed for each essential element and for each security criteria. These values provide a measure of the negative impact on the organization's mission, in case the criteria are not met. The significance of these values may vary depending on the way they are calculated. For example, one can use a function of the type max (x). Another method is that each criterion be decomposed based on a set of scenarios consisting of hazard events, calculating the impact of each scenario and defining the overall value as a function of these values. Each element is a numeric value Bxy of impact from 0 (= no impact) to 4 (= very serious impact).

Stage 3 - Threats analysis - consists of three steps.

Step 3.1 Selection includes: selecting methods of attack (e.g. fire, flood, theft, entrapment, etc.), determine the associated security criteria (e.g. availability, if fire), identification of threat agents (e.g. natural, human, random, etc.), determining the ability of these agents, estimating the resources and capabilities of threat agents, determining the level of expertise and the opportunities that their threat agents.

Step 3.2 is to identify vulnerabilities. For each method of attack there are identified vulnerabilities that could be exploited. Subsequently estimated vulnerability level: very unlikely / not feasible (low probability, requires expensive equipment and a very high level of experience), quite likely (requires a high level of expertise and / or expensive equipment), with high probability (requires standard equipment and experience), certain (can be done by anyone).

Table 3. Identifying security needs

Objective	Impact 1	Impact 2	Impact 3	Security requirements	Observations
Availability	B11	B12	B13	Max(B1i)	
Integrity	B21	B22	B23	Max(B2i)	
Confidentiality	B31	B32	B33	Max(B3i)	

In Step 3.3 the threats are formulated. A threat results from the confirmation of the following: a threat agent (who has the ability to materialize the threat), a method of attack, a set of vulnerabilities, entities that are characterized by these vulnerabilities. For each vulnerability a value of its opportunity can be assigned, calculated from the vulnerability level. For example, lack of control at the server room door (V1) allows a visitor (threat agent) to steal (method of attack) a magnetic device (entity / element) left unattended (V2). In this case the opportunity may be considered maximum.

In Stage 4 and Stage 5, an objective risk diagnosis must be extracted from the dichotomy security needs - threats. Then necessary and sufficient security objectives and the security requirements have to be determined.

Stage 4 - Identify security objectives consists of two main steps.

Step 4.1 is formulating risk. Risk results from the combination of the above (threat agent, attack method, a set of vulnerabilities, entities / elements that have those vulnerabilities, threat capability).

In Step 4.2 the formulation of security goals must be in the form of a decision to treat risk and not as a way to achieve this goal. For example, measures should be taken to reduce the effects of fire in terms of financial losses. Objectives should be related with the computer system or its operational environment.

For each identified risk matrix is developed supporting, including security objectives rationale associated with each estimate and coverage (e.g. partially or uncovered). Strength of security mechanisms to be implemented to meet the objectives of security is determined by the associated potential attacker using Table 4.

A level of strength which illustrates that the security functions provide an adequate level of protection against security breaches planned and organized you deliberately launched by an attacker possessing a high attack potential.

Table 4. Attack potential

Potential / Strength	Description
1	A level of strength which illustrates that the security functions provide an adequate level of protection against occasional breaches of security, launched by an attacker possessing a low attack potential.
2	A level of strength which illustrates that the security functions provide an adequate level of protection against targeted or intentional breaches of security, launched by an attacker possessing a medium attack potential.
3	A level of strength which illustrates that the security functions provide an adequate level of protection against security breaches planned and organized you deliberately launched by an attacker possessing a high attack potential.

SOLUTIONS AND RECOMMENDATIONS

It is obvious that due to the small sample size it is difficult to draw a conclusion based on the level of training in information security risk management handled in computer networks of the European Union as a whole (He, Chen, Chan & Bu, 2012). However, from the results obtained it is quite obvious that one process (defining policies) is more mature than the second one (Coordination and assistance for implementation) that, in turn, is more mature than Process number three (Revision, re-analysis and reporting). Overall, the least mature work appears A8 (effectiveness monitoring).

Although the results are preliminary and indicative only possible to conclude that there is great diversity among Member States in the preparation for conducting security risk analysis for information handled in electronic systems (Krombholz, Hobel, Huber & Weippl, 2015). Consequently, we can conclude that all the analyzed countries are characterized as being less mature in terms of reviewing and understanding how the information security risk management process should be administered than in terms of establishing security policies and promoting security culture.

Information security risk management is essential in strengthening safety culture of the organization (Liaudanskienel, Ustinovicius & Bogdanovicius, 2009). Besides the fact that the staff is directly responsible for the risk analysis takes on a heightened awareness of the risks to the security of information managed by the organization, all staff of the organization is accountable about threats and vulnerabilities resulting from the use communications and information systems processing, storing and transmitting information (Peltier, 2010). Resuming regular risk analysis process security is a good opportunity to involve all staff who manages sensitive information. In this way, the staff will be aware of the importance and sensitivity of the actions we take and will be less reluctant to comply with the security requirements sometimes constitutes barriers to timeliness.

Implementation of information security measures, however, is not always a smooth process and not slippery (Yang, Wu & Wang, 2014). In addition to the issues raised by the high cost of implementing security measures, the authorities control law implementation (enforcement) face a number of problems socially.

The contingency plan should contain detailed tasks and responsibilities and procedures associated with intervention teams' work to restore resources and services system, interruption of its operational status (Hong & Thong, 2013). The provisions of the plan must be clear, concise and easy to apply, even for others who may be required to perform recovery operations in place originally designated personnel.

The document should reach at least the following: basic information about the system configuration, the sensitivity of the information conveyed and minimum safety requirements to be met, procedures and responsibilities for notification stage

/ activation of the contingency plan, procedures and responsibilities for restoring system resources and services, procedures and responsibilities for restoration system.

FUTURE RESEARCH DIRECTIONS

Cyber security incidents recorded in recent years are likely to demonstrate that while policies and technology are critical components of any system of data protection, they alone cannot provide effective protection of information (Singer & Friedman, 2014; Tropina & Callanan, 2015). Risk awareness information security is the first line of defense personnel is true perimeter security computer networks, and their behavior is critical to the protection of information handled by these systems (Choi et al., 2014).

In this context, along with the benefits of using such components for monitoring traffic in communication networks, it also has some negative aspects regarding possible intrusions into the privacy of users.

Traffic monitoring in communication networks is done via software or hardware component package (sniffers) that are designed to intercept and record traffic messages in a digital network (Hjortdal, 2011). As data streams across a communications network, the sniffer captures each packet of information them, decodes and analyzes its content.

CONCLUSION

Between the concepts of risk, organizational culture and trust there is a direct relationship (Kurosawa, Ohta & Kakuta, 2017; Tiago, Manoj & Espadanal, 2014). Changing an organization's operational needs as determined for example by changing mission requirements and exchange information with other entities may involve changing risk tolerance level, above the level set by the management of the organization (Singh & Fhom, 2017). These measures lead to building confidence in the organization long term.

The interaction between trust in organization and organizational culture can also be observed when there is overlapping responsibility or uncovered areas between various parts of an organization may impact on the ability to undertake operative (Wang & Hu, 2014).

Demonstrating that the organization has structures and procedures to ensure effective protection of information that circulates determines both the organization's external partners (suppliers, customers, entities whose business depends on the organization in question) and to staff the faith that the organization operates in a consistent manner based on clear rules and procedures, which leaves no room for chaos and bias.

However, the risk management team should make a clear distinction between emerging threats and those that have already resulted in attacks (Khan et al., 2016). This should be a major concern to highlight the types of attack that may become possible.

Currently there are technologies and security architecture that can provide mechanisms that have the ability to manage threats emerging technologies that need to be taken into account in designing systems to protect information, particularly classified (Lin, Lin & Pei, 2017).

As we have seen, for safety information required increasingly more stringent use of cryptographic mechanisms that make information become inaccessible to unauthorized persons. On the other hand, there is concern becoming more serious on the use of cryptography by criminals in order to escape police observation.

Therefore, cryptography gives rise to a conflict of interests: ensuring privacy and information security versus investigations conducted by entities responsible for implementing the law (Friedberg et al., 2016). From confrontation between supporters of the right to privacy and law enforcement is born one of the major conflicts of the era of information: cryptographic controversy.

The question is how and how governments should address problems that use cryptography by criminals posed law enforcement authorities, given the legitimate right to use cryptography in the information society we live in?

Governments are faced with the need to establish a cryptographic policy, that policy must reconcile the interests of protection of privacy and security of information with the control law implementation (enforcement).

The question is under what conditions may require a suspect to decrypt the information, given the right against self - incrimination as interpreted by the European Court.

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KEY TERMS AND DEFINITIONS

Credibility: Is a concept directly related to risk management. How the organization addresses its credibility influences behavior, and internal and external relations of trust.

Residual Risk: Is the risk that remains after security measures are implemented in a computer system and communications, as a consequence of the fact that not all threats can be countered and not all vulnerabilities can be eliminated or reduced to zero.

Risk: Is defined as the probability that a threat to exploit the vulnerabilities of property belonging to the organization and thereby cause injury organization.

Risk Treatment: Is to reduce or eliminate the risks (through the application of technical and/or procedural appropriate), the transfer of risks and monitoring.

Threat: A potential cause unwanted incidents that may result in damage to the mission of a system or an entire organization. Security threats can be accidental or deliberate (malicious) and are characterized by elements of threat, attack method, and the goods subject to the threat.

Chapter 15
Performance as a Result of Managerial Accounting and Leadership Vision

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ABSTRACT

Achieving performance remains the desire of entities, both those present in the competitive market, and new start-ups that break the existing markets, capitalizing on the opportunities offered by an external environment characterized by volatility, uncertainty, complexity, and ambiguity, but also the present digitalization, internet of things (IoT), 5G internet, and e-platforms. Seen as a reflection of the clear vision of extremely powerful leaders, the overall performance of the entity is attained today against the background of the innovation process. This chapter presents radiography of the new research and deepening directions at the intersection of accounting and management, between science and practice, with the role of potentiating performance as a result of managerial accounting and leadership vision.

INTRODUCTION

The organizational performance concept is directly influenced by the entity's evolution in a digitalized governance circular economy (Yadav & Sagar, 2013). Scientific research and literature reveal that new strategic transformations of entities are considered for the implementation of a performance management system which has the role of translating the strategic plan of long-term and medium-sized objectives into interrelated actions between the managerial plan and financial-accounting

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(Brown & Harvey, 2006; Satell, 2017). In order to prove the effectiveness of these strategic transformations, it is necessary for businesses to produce at their core level (Denison, 1990).

2030 represents the new time horizon that has led entities to shape their Vision, Strategy and Performance Objectives as clearly and convincingly as possible. Although it seems remote as a time horizon, an in-depth knowledge of the resources of each entity with performance potential, including the management system as a whole, methods and techniques implemented to define KPI's Performance Indicators, only build a bridge between Accounting and Management, with a vital role in the evolution of the entity (Lin, Peng & Kao, 2008).

This new global context and the entities' prospect to achieve and maintain Sustainability Performance impose and force the entity's leadership to synchronize managerial decisions with financial-accounting situations as well as industry-specific predictability reports (Tajeddini, 2015). In this way, one can envisage an escalation from a global level to the individual one, towards increasing the competitive advantage, global development, counteraction of the external environment threats, and capitalization of the opportunities through the adoption of pertinent managerial decisions based on economic and financial indicators.

From a conceptual point of view, performance has seen multiple interpretations and approaches from theoreticians and practitioners whose concerns have focused on studying it (Akgün, Keskin & Byrne, 2009; Davila, 2012). Specialized practice reveals the interference of the organizational performance concept with other concepts such as management, leadership, profitability, predictability, economic-financial indicators and metrics (Becker & Huselid, 1998). All of these interferences have led to an interdisciplinary approach and a deepening of the concept of performance, depending on the specificity of the field in order to extend its spectrum of applicability.

The term "performance" has appeared in literature around the middle of the nineteenth century and has been associated with the start of sports competitions as a result of the participation and winning of such a competition (Bourguignon, 2000). With the twentieth century, the concept begins to deepen, and new approaches are attributed to it by theorists and practitioners of the time, for today, in the digital age, performance is identified with the true measure of value for any business leader and manager (Hartnell, Ou & Kinicki, 2011). Those indicators that are directly related to performance and that affect its level are measurable, can be compared to pre-established benchmarks and can provide solutions for future corrections, added value and competitive advantage (Henczel, 2002).

Moreover, the performance and metric performance indicators have been ranked by industry practitioners in business intelligence techniques, but they are different (Rowland & Hall, 2014). Performance indicators are specific, refer to the expected results in the future, answering the question: Where are we going? - contributing to stakeholder decision-making and sending a signal if there is a variable that could produce inappropriate results. Metrics are generic, focusing strictly on performance results and on the current situation, responding to the question: Where are we today? - focusing on delivering work packages, achieving milestones and achieving performance goals.

The economic era of the Digital Age, characterized by an acceleration of technology innovation, fierce competition in gaining competitive advantage, increasing consumer expectations and emerging market pressure, drives leadership to adapt Vision and Entity Strategy to new performance standards (Adegoke, Walumbwa & Myers, 2012). The challenge is all the more so since the influence of the endogenous and exogenous factors of the entities is continuous, hard to control and in which the concept of Performance brings together under this umbrella other characteristics beyond the economic and financial ones that modern entities must incorporate and develop in their own strategy, such as: adaptability, flexibility, customer orientation, and the recruitment and retention of talent, ability to disrupt (Andriole, 2010).

Business excellence models represent the entity's framework for synchronizing vision with action decisions in a more systematic and structured manner, which results in an entity's performance increase (Behery, Jabeen & Parakandi, 2014). At the same time, the integrated performance indicators system would help leadership to lead but at the same time inspire, motivate, in order to have an integrated vision of the clients, the desiderata achieved through the ability to reach the core of the business (Schneider & Somers, 2006).

For the leadership of entities facing the pressure to adapt strategic decisions to economic turmoil, the only source capable of providing accounting information of informational value is accounting, "the basic tool for knowledge, management and control of patrimony and the results obtained by economic entities" (Amagoh, 2008).

This chapter aims to open new research and deepen directions at the intersection of accounting and management, between science and practice, with the role of potentiating performance as a result of managerial accounting and leadership vision.

BACKGROUND

Entities nowadays operate in an increasingly dynamic environment where boundaries of territoriality and temporality almost disappeared, everything is global, multinational and related to the future (Alstete & Beutell, 2018). Any development strategy involves taking into account the predictions: 2030 has become very close, and the performance of an entity has exceeded the profitability boundaries.

In this Digital Age, performing entities "play the best books" for three stakes: the first is "sustainable performance", the second "finding and retaining talents", the quality of human resources contributing to the differentiation in a global and aggressive competitive market, while the third is "research & innovation" (Satell, 2017).

In the opinion of industry practitioners and due to the very high pressure of the external environment, high performance organizations are entities that "have exceptional financial results, satisfied customers and employees, high productivity, organizations that encourage innovation and skills development Leadership" (Tong & Arvey, 2015). At these, depending on the entity and the environment in which it operates, it is possible to add specific features: sustainable financial development, long-term orientation and achieving exceptional.

According with Arsenault and Faerman (2014), three directions of performance measurement have been developed: the first direction determines the actual performance of an entity as a result of the endogenous factors that have an influence on the entity's strategic values; the second direction implies the use of a standard aimed at two actions: the evaluation of the present state by the difference between the performed and the standard performance; the third direction to be referred to as the speed of change within entities to adapt to the environment. This rate of change determines economic entities to adopt a real strategic aggressiveness attitude, manifested through the degree of discontinuity of the organizations' strategic movements and the pace of the entities' strategic movements.

As a result, the focus of entity leadership is increasingly directed towards creating an organizational culture geared to excellence and performance, and to the crystallization of elements that define and contribute to the development of such an environment - Performance Indicators / KPI's.

The need for entities to monitor their activities and their results is vital in order to cope with the threats of competitiveness, to be able to respond in real time to these threats through adaptability and flexibility and to gain competitive advantage over direct competitors (Agha, Alrubaiee & Jamhour, 2012).

In the process of achieving high performance and co-opting, retaining and capitalizing on human resources with a high potential, performance management is a determining factor, being the instrument of leadership to "evaluate individual and team objectives in line with the strategic objectives of the company, in order for the company to gain that competitive advantage in a continuously evolving market" (Olson, Slater, Tomas & Hult, 2005).

Practice in the field reveals that performance management is a process whose purpose is to position an entity among those with "high level of performance" by gating the results and improving individual skills and abilities (Cocca & Alberti, 2010).

At the level of an entity, performance management involves aligning the vision of leadership, strategy and culture with actions taken to achieve goals (Hurley, 2002). Alignment is reflected both at an operational level, through operations management - reflected in the achievements of the team, department or project objectives, and at an individual level - reflected in the entity's maturity level and the high level of human resource utilization (Becker & Huselid, 2006). As a consequence, the individual performance assessment increases and its results directly influence the performance management process, leading to the emergence of the premise to develop new performance measurement tools and methods reflected in the development of performance management systems.

The implementation of performance management within an entity meets multiple requirements directly related to the level of achievement of the set goals (Amagoh, 2008). A first requirement refers to the need for leadership to evaluate and manage a low level of performance relative to objectives, which brings about other implications: focusing on the entity's strategic objectives, aligning resources with activities, feedback and future development directions (Chen & Fu, 2008).

Business excellence models have been developed by international or national bodies and are the basis for awarding prestigious awards (Taticchi, Tonelli & Cagnazzo, 2010). Entities using these models do this for self-evaluation because they can identify improvement opportunities and strengths, use the model as a framework for future organizational development, and achieve significant benefits beyond financial indicators: improving innovation and generating ideas, satisfaction customers, organizational growth (employees), employee satisfaction and involvement, product efficiency, effectiveness and reliability (Fisher, 2010).

A key benefit of prize-based models is that it provides a "balanced balance" of criteria and measures against which entities can objectively assess their performance management systems and compare their performance with standard benchmarks globally or with that of other organizations (Arsenault & Faerman, 2014).

The theoretical course with incursions in the sphere of practical applicability so far has been to draw the framework for the next section, which makes the transition to managerial accounting. The transition is one from the whole.

PERFORMANCE AS A RESULT OF MANAGERIAL ACCOUNTING

From a managerial point of view, entity leadership monitors the current state, closely related to the environment in which it evolves, to scan the internal environment and validate by mandate the need to implement a Performance Management System to achieve a State Desired Evolution (Englund & Gerdin, 2018). In this sense, a portfolio of Initiatives is developed in which the long-term and medium-term strategic objectives are correlated with the Strategy, Scorecard and Performance Dashboard. In terms of Performance Management, entities apply new methods to increase their competitive advantage: Balanced Scorecard, Dashboard / Dash Board, Benchmarking, Prism Card Performance Skill / Skandia Navigator Framework, EQFM Business Excellence Model (Wickramasinghe & Alawattage, 2007).

Harmonizing with the new requirements of the Global Market and meeting the requirements of more and more sophisticated customers, it drives the leadership of the performing entities towards implementing customer-oriented management models such as CRM (Customer Relationship Management), Benchmarking, Dash-Boards (Verbeeten, 2010).

Under the above-mentioned conditions and considering that the accounting information is the main source of substantiation of the value-creation indicators, it is necessary to apply within the entities the analysis and diagnosis of its economic activity and the application of modern methodologies and techniques for measuring the performance (Alhyari et al., 2013). Applying modern methods and techniques to measure performance has the role of enabling leadership of the best way to implement a tool that enables value creation for the entity along with the development of future-oriented policies and strategies (Deutsch & Silcox, 2003).

Modern methods and techniques for measuring the performance on which management is based in analyzing and substantiating strategic, tactical and operational decisions are: Balanced Scorecard; Dash Board; Benchmarking; Prism Performance Card; Skandia Navigator Framework and EQFM Business Excellence Model (Cameron & Quinn, 2011).

Balanced Scorecard (BSC) is the result of Kaplan and Norton's research in 1992, being the result of a KPMG sponsored research project. If we were to define the BSC, then it "represents a mechanism used by leadership to implement the strategy and expression of the entity's vision" by bringing together both financial and non-financial indicators (De Waal & Kourtit, 2013). BSC offers the perfect framework for performing performance measures, with the goal of achieving competitive advantage.

The utility of the medley proves to be all the more valuable for the entity's leadership as four development dimensions are approached, which Kaplan and Norton highlight: the financial dimension: related to the satisfaction of investor requirements and expressed by: financial indicators used to determine the performance of the entity ; customer dimension: aims to meet customer requirements and is expressed through indicators such as delivery times, quality, performance level and cost from the customer perspective; the size of internal business processes: refers to the quality of internal processes and is expressed by operational measures taken by the leadership at the internal level; development and innovation dimension: expresses the entity's ability to innovatively and continuously develop, engaging in these processes all resources to improve critical processes that can influence performance, and is expressed by indicators such as: the entity's development curve.

Both theoreticians and field practitioners recommend applying BSC at the entity level, as it provides a balance between the qualitative and quantitative outcomes and the main drivers of performance, and, on the other hand, a harmonization of the application of some external measures for shareholders and customers, and internal measures for critical business processes, innovation, development and knowledge (Kaplan & Norton, 2006). This value judgment is supported by Kaplan and Norton through some pertinent allegations that serve to strengthen the BSC's position among modern methods of measuring one entity's performance and deriving from each other: BSC actively contributes to the clarification process and updating the strategy of the entity in which it is implemented by identifying and aligning strategic objectives; BSC requires communication by leadership and understanding by all departments and stakeholders interested in the entity's strategy; The BSC contributes positively to the system's processing of a large amount of both financial and non-financial information, obtaining a concise and essential amount of data in assessing the entity's performance; BSC helps to align long-term strategic objectives with annual budgets; BSC is a method of periodically reviewing performance to improve it through strategic feedback.

The Balanced Scorecard is a method developed to help improve entity performance by focusing on key financial and operational information in the entity's activities (Ahearne, Mathieu & Bolander, 2010). Balanced Scorecards consist of quantitative, visual, tabular and graphical components or key performance indicators, thus reinforcing their ability to improve the performance of an entity, the users of the method become "core of the business ". Both Scorecards and Dashboards are two similar techniques that enable leadership to "analyze, measure, provide more information to agents, and act swiftly, and thereby contribute to enhancing entity performance."

The Dashboard is a leadership tool of the entity, which originates in interwar France (Anand & Kodali, 2010). Its role is to analyze and select those indicators through which the presentation can synthesize the activity developed by the entity. As an instrument in the leadership process, it allows access to both financial and non-financial indicators, which in the context of this versatile economy makes it even more valuable (Homburg & Pflesser, 2000). The relatively low number of indicators makes it easy to understand, simple to interpret, with an addressing sphere at any operational level of the entity.

Dashboards can be: operational (monitors operational processes), tactical (monitors key processes and projects for a small number of employees), and strategic (monitors achievement of objectives). The role of the Dashboard is to connect leadership to the entity's real-time activities, gaining the status of personalized user interface, "helping to measure organization performance, understanding organizational units, business processes"(Chan, Shaffer & Snape, 2004). Dashboards are generated in Excel, with the cost of implementation being reasonable and allowing analysis and monitoring of operational performance every week, day, or even hour.

Designing Dashboards enables efficient communication based on graphs and tables of key risk indicators whose values are above the accepted thresholds. "It is estimated that 40% of the top 2,000 companies in the world use Dashboards in their Business Intelligence programs"(Rowlan & Hall, 2014).

Benchmarking, in the context of today's economic environment, so volatile, uncertain, complex and ambiguous, is the key to controlling entities that have understood and accepted that in order to stay on the market it is necessary, regardless of the field of activity, to consider Vision Pillar - Innovation as essential (Allan,1993). The purpose of applying the Benchmarking method is to establish for the entity the policies and strategies that will need to be adopted and implemented to maintain market position and gain competitive advantage. Benchmarking is the process of comparing your own organization, operations or processes with other organizations in the same industry or a wider market (Davila, 2012).

Some authors brings attention to several variants whereby an entity may decide to apply the Benchmarking method to improve its performance (Alhyari et al., 2013; Deutsch & Silcox, 2003; Galbraith & Lawler, 1993). It may mean applying a: Strategic Benchmarking - used when the organization wants to improve its overall performance by examining strategies and approaches that have made it possible to achieve high performance "by certain entities; Process Benchmarking - is used when trying to improve processes and operations with a decisive role in generating organizational performance; Benchmarking Competitive - Enhanced performance of the entity through comparative analysis of key product and service characteristics obtained by competitors; Functional Benchmarking - entity performance is analyzed against other selected entities in different business sectors.

The purpose of this type of analysis is to improve the performance of functions similar to other entities; Internal Benchmarking - Improves the performance of an entity's department (e.g., a "business unit") as compared to another department within the same entity; External Benchmarking - The entity's performances are analyzed against the best-in-class market; International Benchmarking - An entity's performance analysis is performed by comparison with the performance of other entities on a particular international market.

Leaders' decision to apply Benchmarking to their entity can be taken as a result of the desire to continuously improve performance as a result of preventing threats that may arise or as a result of harnessing some of the external or internal environment (Henczel, 2002). Applying the Benchmarking method involves passing it through a complex process of performance comparison, a process that will take place within a predetermined time, and on which it is imperative to establish stages to justify its performance at the end and to ensure its efficiency reflected in synchronization the leader's vision with the performance of the entity.

Another method by which entities can manage the increase in shareholders' wealth, together with the increased prosperity of the community in which they operate, is Stewardship - the management of the business with care and responsibility (Ashkanasy, 2011).

The challenge is all the more so as modern entities seek to contribute to the prosperity and well-being of their society, what they now carry with the nomination of Corporate Social Responsibility (Lim, 1995).

In Stewardship Asia Center's view, stewardship is a way of managing a company that ensures that the company's business can thrive and have a growth rate that can be sustained, and also ensures that you act in such a way that to increase in the long run both the wealth of its shareholders and the prosperity and well-being of the company in which the company operates (Alstete & Beutell, 2018). At the level of an entity, the Stewardship implies that the people to whom it is entrusted wealth, whatever it is, or of any kind of assets, have the obligation, at the end of their term of office, to hand over those assets in a better condition than the one they inherited, in other words being responsible beyond your own person or beyond the entity you lead, and in the long run beyond your life (Reed, Goolsby & Johnston, 2016).

Stewardship is directly related to the concept of performance, but the performance time with capital, where it is obtained without sacrificing future profits, ensuring that there is a continuity of competencies and relationships that contribute to creating a positive net impact - economic, social and environmental on future generations. But for this, it is imperative to have a very well-defined strategy that traces the "trajectory" of action, investing in capabilities and competencies in R & D, marketing and branding (Barney, 1986).

Another feature of stewardship entities is that they strategically operate with long-term horizons based on trust-based cultures, structures well-aligned with strategy and goals, and supported by strategically-minded thinkers, whose vision is medium and long term, ensuring that succession in leadership positions is assured and prepared early, and that the "legacy" of principles and leadership experience is protected and passed on (Delaney & Huselid, 1996).

Performance Indicators, Value Indicators, Integrated Performance Indicators System implemented by leading leadership, converge to Benchmarking and Stewardship (Satell, 2017). Challenged by the evolution of a fragmented market, the pragmatic adoption of new technologies together with the implementation of an Integrated Performance Indicator System represents new opportunities for new market players to innovate and develop business models that generate profit (Parveen & Noor Ismawati, 2015).

The Performance Pyramid - PP method suggests that a performance pyramid is capable of transforming executive economic information into a hierarchy from top to bottom in a set of operational objectives for business division managers and also from top-level managers, the top management financial ratios to be evaluated on the basis of financial scorecards (Tong & Arvey, 2015).

The Skandia Navigator Framework is classified as a non-financial model that emerged from the need to measure and demonstrate the contribution that the value expressed by intellectual capital can actively contribute to improving the performance of an entity (Davila, 2012).

Through the model, leadership is able to establish a link between the strategic vision of the entity and its objectives that serve as a communication and information tool (Fan, Li & Zheng, 2016). Specifically, the model divides intellectual capital into two main components: human capital and structural capital. The structural capital consists of: the client's capital and the capital of innovation and process, and the Human Capital is represented by knowledge (more precisely) of the adaptability of human capital to different tasks. In the opinion of its initiators, human capital has the highest rate of generating intangible assets, bringing together under the same umbrella, knowledge, experiences, talents and abilities in a continuous transformation of human know-how into structural capital (Mikalef & Pateli, 2017).

The main reason the entity's leadership wants intangible measurement is to develop different non-financial performance indicators (Ball, Li & Shivakumar, 2015). Unlike other scoring methods, Skandia Navigator presents users with a wide scale of measurement of immaterial systems from every perspective. The model has developed very useful tools to achieve intangible performance with various focus points by using a large number of reports and percentages.

The EQFM Business Excellence Model is defined by the European Foundation for Quality Management (EFQM) as the expression of "outstanding practices in organizing and delivering results, all based on a set of eight fundamental concepts": orientation towards results; client, leadership and constancy of purpose, management through processes and facts, people's development and involvement, continuous learning, innovation and improvement, partnership development, and public accountability (Rowland & Hall, 2014).

On the interdependence between management and financial-accounting Alstete and Beutell (2018) find: Support Function Advantage (supporting functions to create added value for activities with cost reduction and use of digitization); Shared Services (use of digitization to increase productivity and work efficiency); Complexity Management (Simplifying Management to Increase Competitiveness); Capability Sourcing (Synchronization between price, source and partnership); Business Process Redesign (getting value added to consumers); R & D / Innovation (supporting R & D investment to increase the competitive potential of the entity and creativity).

SOLUTIONS AND RECOMMENDATIONS

But even if conceptually terminology gives clarity to the approach, field practice reveals difficulties that entities encounter in defining KPI's, which are due to differences in the field of activity (Ahmed, Arshad, Mahmood & Akhtar, 2016). To counteract the appearance of confusion, it is imperative that the entities clearly determine the field of activity for which KPI's specific lineages are to be developed, whether we are talking about the financial area, the human resources or the operations.

In order for this approach to take shape, specialist practice recommends an integrated approach to internal and external resources, and greater focus on the implementation of the concepts of knowledge management, supply chain management, knowledge-sharring, open innovation "," Enterprise resource planning (ERP) "," enterprise interoperability ". In addition to this integrated resource approach, the theoreticians recommend that the entity's leadership develop and apply the concept of "step-by-step linear performance" precisely to reduce the rate of change the entity is subject to in the turbulent environment in order to get closer as much as possible from real competitors.

The impact of Internet of Things (IoT), Cloud Computing, Distributed Intelligence and Robotics on entities over the 2020-2030 period will be very strong. Only an in-depth knowledge of the entity, the operations carried out, the transparency of managerial processes, the use of accounting information and its proper use, the knowledge of the external environment but especially the threats, the innovation in order to increase the performance, the creation and implementation of modern methods of determination its performance and permanent upgrading, all of which can represent the response to the disruptive forces and can ensure the stay in the market.

FUTURE RESEARCH DIRECTIONS

For an entity operating around globalization, digitization, machine learning, it is increasingly difficult to focus its activities without taking into account the complexity of both the internal environment and the external environment. And, as an extra threat, the time for which the performance results recorded keeps its validity decreased vertiginously. Whenever, anywhere, there are entities that gain competitive advantage, which breaks up emerging markets and raises quality standards and leads to a global, global thinking, all around world oriented.

The underlying element of an entity's Performance Measurement and through which the Leadership harmonizes the Vision with the Strategy to reach the objectives is the Performance Indicators / KPI's. The evolution of the economic environment, the emergence of new concepts of globalization, circular economy, green growth, exponentially contributes to the diversification of Performance Indicators on which an entity's leadership directs its attention. The practice of recent years has relevant two major trends: a high degree of the presence of non-financial indicators and a correlation of the entity's strategy with the actions taken to achieve the objectives.

At the entity level, Performance Indicators are the expression of Leadership Vision Harmonization with the Strategy, and their values indicate correlation with established goals, showing whether they have been met or not adding value to the entity. But how is it that, although the concept is so clearly defined, present entities face a lack of performance, or a much lower level than projected and pursued. In order to achieve this, identifying, selecting and implementing Performance Indicators appropriate to the activities of an entity is more than necessary, each of the objectives of the strategy being assigned a relevant Performance Indicator.

If until now the time and cost, as well as their derivatives were the indicators over which the entities have focused, the current challenges have generated the need for entities to expand their performance spectrum and to take into account both economic and non- economic, economic, technical, managerial, and environmental mix.

The process of identifying and selecting relevant and useful KPIs that are embedded in strategic planning processes must be done by respecting a set of rules that both the theory and practice advocates, rules that actively contribute to the imposition quality requirements for these performance indicators, thus answering leadership to the question: "How should a KPI be my value-added?"

Quality requirements refer to criteria of: credibility, opportunity, accessibility, reliability, relevance, consistency, simplicity, neutrality and reactivity.

The continuation of the study is intended to be an insight into these questions faced by the modern, visionary Leadership, which is governed by Stewardship and Sustainable Development. Because in Stewardship's sense "getting the current performance is done without sacrificing future profits".

CONCLUSION

Digital era has brought with the exponential growth of the economic and technological opportunities that entities can access and implement in the development of their own activities and a series of threats with strategic impact. Being global, multinational, sustainable, socially responsible, profitable, talented oriented, credible, performing, involves at the level of the entity a leadership connected to market threats, adaptable, market oriented, customer oriented, effective, identifying with the vision of the entity to its members through the organizational culture it cultivates, but above all a leader who understands and is aware of the functioning of the entity, both managerial and economic. The understanding of the economic and managerial mechanisms of functioning, underpins the making of relevant, real and especially opportune decisions with a role in counteracting the turbulent environment threats and increasing the potential of the entity. And for this, a permanent assessment and re-evaluation of the entity's performance is imperative.

Performance in the present controversial, contradictory, vulnerable and volatile context is similar to achieving the entity's economic and financial objectives while increasing customer satisfaction, while respecting stakeholder interests, in terms of sustainability and stewardship. And this desideratum will contribute to transforming some entities into some performances: "Do not lower your expectation to meet your performance. Increase your level of performance to meet your expectations." At the same time, more attention needs to be paid to implementing the concepts of "knowledge management," "supply chain management," "knowledge-sharing," "open innovation, enterprise resource planning (ERP)," "enterprise interoperability."

The relationship between the value of the accounting information and the Performance Indicators is mandatory, and there can be no predictability and performance without each other. Both concepts gain value over time, both the accounting information as a result of the economic activities and the KPI's as a result of a clear set of future directions for action, and therefore I think that both concepts fall into the core capabilities area ". The core that a leading leadership can base their most important decisions: whether we are talking about new markets, benchmarking, business scaling, market exit, globalization or digitization. There are very large-impact decisions at the level of entities, decisions that can play a heavy role in market positioning, economically grounded decisions can counteract external forces that exert pressure on the entity.

In conclusion, the results that accounting practitioners provide to leadership through financial statements and reports can facilitate access to the entity's current state, to possible upward or downward trends that may influence positively or negatively its evolution.

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KEY TERMS AND DEFINITIONS

Decision: A person or group of persons' social and deliberate act defining the purpose and the objectives of a certain action, the directions and the ways to achieve that action, all of them determined, according to a certain need, by a process of obtaining information, deliberation, and assessment of the means and consequences of carrying out that action.

Economic Management: The achievement of the budget objectives with minimum costs so that when the activity is completed the revenue exceeds the costs, namely there is a profit that ensures a level of profitability as high as possible both at general level and by product, department or service performed.

Management: The process of manager's coordinating and overseeing the work activities of others so that their activities are completed.

Managerial Dashboard: Contains a set of actual information presented in a predetermined form, relating to the main results of the company's activities or to some of them and to the main factors conditioning their effective and efficient progress.

Organizational Performance: Elements affecting company performance such as financial and marketing factors, return on sales, return on investment, etc.

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