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COVID-19 Pandemic Impact on New Economy Development and Societal Change

Cristina Raluca Gh. Popescu

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Dedication

The editor would like to dedicate this book centered on the COVID-19 pandemic impact on the new economy development and the societal change to all the specialists and researchers focused on subjects related to the following fields of interest: economics; business and management; computer science and information technology; education; environmental, agricultural, and physical sciences; library and information science; medical, healthcare, and life sciences; media and communications; security and forensics; government and law; social sciences and humanities; and science and engineering. All the chapters bring great added value in today's context, especially since the COVID-19 pandemic socio-economic impact and implications are without precedent in the recent history of mankind and, also, the COVID-19 pandemic socio-economic impact and implications are extremely hard to predict in-depth since the current situation is far more than a health crisis.

The editor would like to dedicate this book to all the specialists and researchers that treasure innovation, cherish novelty, prize progress, and appreciate the immense potential of intellectual capital in all domains of interest. The importance of intellectual capital, combined with the force of sustainability and sustainable development, offer all individuals and all entities around the globe a powerful tool and a valuable asset that is capable to change the course of history, ensuring protection and a secure future to all individuals and to the planet as a whole. Intellectual capital – the most valuable intangible asset, boosts entities capacity to develop and grow in a healthy and constructive manner.

The editor would like to dedicate this book to all the editorial advisory board members as well as the editorial review board members, since there constant help and support enabled the development and the success of this current project.

The editor would like to dedicate this book to Associate Professor Dr. Jarmila Duháček Šebestová, from the Department of Business Economics and Management, the Silesian University in Opava, SBA in Karviná, the Czech Republic, and the Moravian Business College Olomouc (MVŠO), the Czech Republic – an experienced researcher focusing on Small Businesses, who has successfully participated in a number of international projects, including IPREG (Innovative Policy Research for Economic Growth) and the E-WORLD project (International Entrepreneurs Network), the Vice President of the European Council of Small Businesses for the Czech Republic, and a reputed specialist in small business performance, small business dynamics, social and sustainable entrepreneurship. Associate Professor Dr. Jarmila Duháček Šebestová prepared the foreword for this valuable book and, also, supported with her kind comments and suggestions the progress of this book.

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The COVID-19 pandemic shock made nations worldwide seek support in different forms of international cooperation, realizing that strength is derived from countries' capacities to unite their forces and act together in times of crisis. Faced with the perspective of the COVID-19 crisis consequences, states have to adapt, focusing on implementation of robust managerial strategies and concentrating attention on ensuring strong financial systems. Given that, on the one hand, in the attempt to provide a healthy life and sustainable development, a balance needs to be established in terms of environmental, social, and corporate governance; and, on the other hand, in the quest to guarantee fair and transparent tax systems, a minimum global tax rate should be implemented. Likewise, in the new economy, the knowledge-based economy, the digitalized economy, business organizations should act in the spirit of sustainability while centering their efforts on efficiency, productivity, profitability, and performance and benefiting from the impressive advantages provided by intangible assets.

The Indian and the international media presented the Indian migrant workforce's troubles during the COVID-19 crisis. The unprecedented circumstances opened a Pandora's box of years of neglect and sidelining of the welfare and wellness of the migrant workers of the informal sector. The literature was sourced from the workforce migration literature of India, newspapers, government and private agency reports, population census of 2011, and research papers published during the period. This exploratory research has the objective to explore the informal sector's background and the migrant workers of India before the pandemic to understand the immediate short-term implications and the long-term impact of the pandemic across all sections of the informal workers. Finally, the research concludes with a discussion on the policy imperatives deemed to have a beneficial effect on the migrant workers in future years, once the COVID-19 crisis is over.

The term knowledge society brings together many of the transformations that are taking place in today's society, and its definition serves as an indicator of these changes. The related concentrations or asymmetries that arise from the phenomenon are also the subject of analysis and dispute. Its development and scope have been uneven, constantly incorporating new meanings to the existing terminology, hence the need to analyze 82 concepts of the knowledge society through a frequency count in Google Scholar, with a subsequent categorization saturating in six dimensions, in order to analyze their framing. The methodology used a higher-order association, establishing the most significant combinations and weightings. From these results, the concept of the knowledge society is defined by the dual economic-social category, according to its frequency of use in Google. This shows economic influences as a determining factor in the knowledge society, engendering processes far from the common good or the general interest.

This chapter has the purpose to analyze the implications of innovative adaptation in strategic organizational resilience. It is assumed that organizational resilience has a strategic role designed and implemented to promote organizational community resilience to survive, adaptive innovation, and achieve success after a disaster. The method employed is the reflective and analytical review of the theoretical and empirical literature to clarify the relevant issues of innovative innovation in strategic organizational resilience. It is concluded that innovative adaptation and engineering resilience strategies achieve organizational resilience as the capability to self-renew through innovation.

There is an unprecedented pressure that both individuals and businesses endure, especially when considering changes and challenges brought by the COVID-19 pandemic and the COVID-19 crisis. Mindfulness seems to become an integrated part of people's lives, in the attempt to be more concentrated on their daily tasks, more focused on living in the present moment, more determined to eliminate anxiety and stress. In like manner, mindfulness in business seems to become a key solution to stronger entrepreneurship and highly successful workplace relationships. Thus, the new economy, the knowledge-based economy, centers its attention on the powerful links and opportunities that may be encountered between well-being, mental health, and mindfulness, seeking a way to create valuable mindfulness business principles, capable of producing outstanding results, empowering people, facilitating cooperation, allowing good governance, inducing corporate social responsibility, fostering community connections, enabling competitiveness, and supporting sustainability, development, and environmental balance.

The objective of this chapter is to analyze the implications of organizational resilience capability and capacity building and development processes and the posed challenges to its design and implementation. It is based on the conceptual and theoretical assumptions underpinning the capabilities of resilience that can be learned and designed by organizations to be implemented and applied to adverse conditions. These underlying assumptions affect the organizational resilience capabilities building. It is concluded

Foreword

Nowadays, the COVID-19 pandemic and the COVID-19 crisis are believed to have brought dramatic changes in our society. These are unprecedented situations and unmatched challenges for all individuals, all over the world, which call for unity, equality, and the powerful desire to be of help.

The current book on the COVID-19 pandemic impact on the new economy development and the societal change possesses a high attractiveness for readers in all domains. The content of this book is fascinating, offering delight and enjoyment due to the valuable ideas presented and the impressive amount of information brought to light. Also, the details closely and thoroughly analyzed by the authors, in each book chapter, may be regarded as vital in today's economic, financial, social, political, and demographical context. The diversity of the topics shows the relevance of all the aspects brought into discussion, and the significance of each book chapter becomes clear to the reader while seeking to understand the major implications of the COVID-19 pandemic impact on the new economy development and the societal change in these days general context.

The enthusiasm of each author or group of authors for all the subjects under analysis – which is illustrated by the content of the scientific works, displays the immense value and the great potential hidden in each and every book chapter, especially since the researches target international contexts, thus promoting diversity and interdisciplinary approaches and ideas.

Under these given circumstances, the book is ideal for academics, scientists, researchers, students, Ph.D. scholars, and postdoctoral students, enhancing knowledge, razing the interest towards the COVID-19 pandemic impact on the new economy development and the societal change, and drawing the attention to the most recent and most challenging changes that occurred or are due to occur in our society, as follows:

- Chapter 1 targets the case of change management, organizational adaptation and labor market restructuration, bringing into discussion several aspects closely related with the post-COVID-19 era.
- Chapter 2 tackles the necessity of changing the dynamics of the market of fertilizers in México, presenting and analyzing a comprehensive sustainable entrepreneurship model for organic fertilizers business during the pandemic.
- Chapter 3 concentrates on the aspects specific to constant communication for community engagement through responsible leadership to manage pandemic.
- Chapter 4 displays the challenges faced by criminal policy, security and justice in the time of COVID-19.

- Chapter 5 focuses on the energy market in the post-COVID-19 world, and a structural analysis of critical factors for China is part of this particular work.
- Chapter 6 illustrates the importance of environmental, social, and corporate governance by avoiding management bias and tax minimization, while reaching a general consensus regarding a minimum global tax rate.
- Chapter 7 highlights the impact of COVID-19 on Indian migrant workers and the informal sector, emphasizing several policy imperatives.
- Chapter 8 is dedicated to presenting the implications and asymmetries of the knowledge society; in this matter, an analysis of 82 constructs being performed by the authors.
- Chapter 9 shows the importance of innovative adaptation in strategic organizational resilience.
- Chapter 10 points out to the importance of mindfulness business principles and the capacity of producing outstanding value and encouraging community connections with the aid of mindfulness instruments, methods, and strategies.
- Chapter 11 addresses the importance of organizational resilience capability and capacity building.
- Chapter 12 discusses the aspects surrounding the valuable topic of resilience of the hotel industry in COVID-19, shedding a new light on the case of India and the Indian context.
- Chapter 13 brings to light the case of salesmanship skills in COVID-19 times, and concentrates on finding an answer to the major question: "Is there any impact on sales strategy implementation and performance?"
- Chapter 14 is closely dedicated to addressing the social reactions to pandemic, thus concentrating on individuals' rising interest in pandemic movies.
- Chapter 15 centers the attention of the strategic human resource management in the 21st-century organizational landscape, mainly focusing on human and intellectual capital as drivers for performance management.
- Chapter 16 sheds a new light on the challenges and perspectives belonging to women entrepreneurship through the COVID-19 pandemic and beyond, and the study itself has both theoretical and practical implications.

I am kindly inviting academics, scientists, researchers, students, Ph.D. scholars, and postdoctoral students to read this important book or those chapters that are fundamental to their activity, based on their scientific background, since I strongly believe that this book will offer, on the one hand, valuable explanations concerning the implications of the COVID-19 pandemic impact on the new economy development and the societal change, and will provide, on the other hand, engaging solutions for a better and brighter future for all in the Post-COVID-19 era.

All in all, this is the perfect moment to congratulate the authors for their consciousness and rigorousness during all the stages of preparing and improving their book chapters, until the moment of publication.

Also, this is indeed the right time to congratulate the editor, Professor Dr. Cristina Raluca Gh. Popescu, from the University of Bucharest, Bucharest, Romania, The Bucharest University of Economic Studies, Bucharest, Romania, The National Institute for Research and Development in Environmental Protection, (I.N.C.D.P.M.), Bucharest, Romania, and the National Research and Development Institute for Gas Turbines COMOTI, Bucharest, Romania, for choosing to be part of such a novel and such an extensive scientific project, which clearly implicated a lot of work, effort, and perseverance.

In the end, I would like to express my deepest appreciation to the publisher IGI Global for offering me this tremendous opportunity to make an in-depth analysis of this book and to be able to write, in brief, my comments and my thoughts concerning the book chapters as well as my highly treasured collaboration with the editor.

Jarmila Duháček Šebestová
Silesian University, Opava, Czech Republic & Czech Republic Moravian Business College, Olomouc, Czech Republic

Jarmila Duháček Šebestová, *Associate Professor, is an experienced researcher focusing on Small Businesses. She has participated in a number of international projects, including IPREG (Innovative Policy Research for Economic Growth) and the E-WORLD project (International Entrepreneurs Network). She is Vice President of the European Council of Small Businesses for the Czech Republic. Research interests: small business performance, small business dynamics, social and sustainable entrepreneurship.*

Preface

The COVID-19 pandemic had an impressive impact on the new economy development and implicated societal change at all levels and all around the world. The Covid-19 pandemic has brought new opportunities and threats to our economy and society which require immediate attention. In the foreseeable future, there is a need to identify new economic and social trends, to design new solutions and new paradigms, and to discover new successful business practices and consumption behavior enriched by a strong transformative impact on the economy worldwide.

The present book aims to provide an updated view of the newest trends, novel practices, and latest tendencies concerning the manner of shaping the new economy and accelerating societal change, in an attempt to demonstrate the crucial importance of rethinking the world's models, priorities, and strategies, while seeking a more responsible path for humanity in the context generated by the important changes caused by the Covid-19 pandemic shock. The main objective of this reference book is to provide valuable insight into today's important changes caused by the Covid-19 pandemic shock in terms of shaping the new economy and accelerating societal change. It is ideal for academics, scientists, researchers, students, Ph.D. scholars, and postdoctoral students.

In essence, it should be emphasized that the major objective of this reference book is to provide valuable insight of today's important changes caused by the Covid-19 pandemic shock in terms of shaping the new economy and accelerating societal change. These days, globalization and technological advances have the immense power to create the general context of a new economy, capable to address in a better way sustainability concerns and to facilitate benefic societal changes. In addition, the COVID-19 pandemic has clearly led to notable modifications while referring to the world economy and society, since rapid adaptation represents the key to all problems: the way of life required adjustments, the production methods imposed diversification, and the business models needed transition, while the ways of working and consumption called for variation. In continuation, the COVID-19 pandemic has managed not only to change the rhythm of new knowledge dissemination, but has succeeded to accelerate the manner of creating new knowledge and putting the valuable information generated to good use. Also, the COVID-19 pandemic has brought both to our economy and to our society new opportunities and new threats, which will require immediate attention, thus showing that the foreseeable future will bring the need to identify new economic and new social trends, to design new solutions and new paradigms, to discover new successful business practices and consumption behavior enriched by strong transformative impact on the economy worldwide. It should also be emphasized that another main objective of this reference book is to provide valuable insight of today's important changes caused by the COVID-19 pandemic shock, by offering answers to some of the key questions that follow: (1) In what way can individuals understand and analyze the business models that drive change, while shaping the new economy and accelerating societal change? (2) How can businesses accelerate the process of creating competitive advantages and how can they transmit these competitive advantages to management, leadership, and other key shareholders and stakeholders? (3) In which why collective efforts matter and how can businesses become major players in addressing and transforming global issues, such as sustainable development, climate change and income inequality? (4) Which role do the government, investors, and customers get to play in terms of environmental, political, and social landscape in the context generated by the COVID-19 pandemic?

This book aims at providing an updated view of the newest trends, novel practices and latest tendencies concerning the manner of shaping the new economy and accelerating societal change, in the attempt to demonstrate the crucial importance of rethinking the world's models, priorities, and strategies, while seeking a more responsible path for humanity in the context generated by the important changes caused by the COVID-19 pandemic shock.

The target audience is extremely diverse and is represented by academics, scientists, researchers, students, PhD scholars and Post-doctoral students. Also, this reference book will present important features concerning sustainable development goals, challenges, and practices, while emphasizing the key determinants in achieving performance and excellence, which will prove to be extremely valuable for specialists, practitioners, governmental institutions, and policy makers' worldwide. Nevertheless, this scientific book will represent a well-documented and well-developed work for (potential) business leaders, entrepreneurs, and managers, as well as highly prominent individuals involved in decision making processes.

It should be also noted that the main target of this reference book is to provide a platform for sharing researchers' and professionals' most recent ideas, findings and works concerning the transformative impact of new business practices and consumption behaviors specific both to today's economy and society. In this context, researchers and professionals are kindly invited to submit their contributions in form of original research papers, case studies or essays, in particular on the following topics (but not limited to the following topics) highlighted below. It should also be stated that interdisciplinary and cross section contributions are welcomed as long as they fall in the area specific to shaping the new economy and accelerating societal change, with reference to important changes caused by the Covid-19 pandemic shock. As mentioned in the lines above, the COVID-19 pandemic had an impressive impact on the new economy development and implicated societal change at all levels and all around the world, thus challenges appeared in all areas as follows:

- Agricultural innovation
- Artificial intelligence and the power to influence the future
- Business excellence and innovation
- Climate chance
- Circular economies
- Competency-based education
- Constructing modern knowledge
- Ecosystems management and water and land preservation
- Energy transitioning to sustainability
- Entrepreneurship and greening economy
- Entrepreneurship measuring indicators
- Entrepreneurial finance
- Environmental sustainability and justice

- Food security
- Future energy scenarios, with focus on smart energy markets
- Health education and awareness
- Health disparities
- Health management and trust in health systems
- Intellectual capital, sustainability, and resilience
- International entrepreneurship
- New and sustainable agribusiness management models
- Smart cities
- Sustainable agriculture and organic farming
- Sustainable conservation management
- Sustainable development in business reporting
- Sustainable entrepreneurship
- Sustainable entrepreneurship skills and competences
- Sustainable human resource development
- Sustainable rural community development
- Global entrepreneurship
- Social entrepreneurship
- Women entrepreneurship
- Corporate social responsibility
- Creativity
- Creating an inclusive and competitive entrepreneurship
- Information technology
- Innovation
- Innovative business models
- Innovation for sustainable agriculture and food chains
- Intellectual capital
- Leadership
- Knowledge management
- Organizational performance
- Public policies and influences on entrepreneurship
- Responsible innovation, performance, and excellence for a sustainable future
- Responsible consumption and production
- Social responsibility
- Sustainable entrepreneurial ecosystems
- Sustainable energy, with responsible consumption and production
- Sustainability practices
- Sustainable society, with responsible consumption and production
- Technologies and policies for a sustainable society
- Technological and social innovation for sustainable business
- Travel resilience and sustainability challenges
- Tourism resilience and sustainability challenges

ORGANIZATION OF THE BOOK

The book is organized into 16 chapters. A brief description of each of the chapters may be found below, as it results based on the authors' own statements:

Chapter 1 targets the case of change management, organizational adaptation and labor market restructuration, bringing into discussion several notes for the Post-COVID-19 Era. The authors of this chapter were particularly interested in the most recent transformations caused by the COVID-19 pandemic crisis, making continuous references to the world economy accelerated mutations as well as to the current developments that were capable to affect the various socioeconomic organizations and systems and how they can adapt to this new emerging reality. The authors made in their chapter numerous relevant forecasts on the current pandemic crisis, especially in the context in which this crisis caused the acceleration of the Fourth Industrial Revolution, functioning as a catalyst of the structural changes also observed in the working environment. What is more, the authors have suggested in their chapter that all socioeconomic organizations are facing readjustment and restructuration, with the aid of innovation as the new way of perceiving organizational resilience and adaptability for the Post-COVID-19 Era. The chapter emphasizes the need to better understand the following key concepts: Post-COVID-19 era, fourth industrial revolution, labor market transformation, organizational adaptation, change management, innovation, economic development, and globalization dynamics.

Chapter 2 tackles the necessity of changing the dynamics of the market of fertilizers in México, presenting and analyzing a comprehensive sustainable entrepreneurship model for organic fertilizers business during the pandemic. This chapter aims to analyze the market of fertilizers in México during the pandemic crisis, in the attempt to shed a new light on the fact that the consumption of fertilizers has undergone a change in the structure in favor of consumers with the highest concentration and diversification. What is more, the author of this chapter uses in this book chapter both the analytical-descriptive method and the critical reflexive method based on the quantitative data obtained from secondary sources. In continuation, the author analyzed the functioning of an integral model of entrepreneurship in Green Innovation Business (GIB) that is currently emerging and in the process of internationalization. Furthermore, the target of this book chapter was to analyze a particular company, which specializes in ecological bio mineral organic fertilizer, where no chemical product is used to produce the composition, everything that is marketed is made up of a base of organic minerals and other organic compounds. The main concepts brought into analysis were as follows: fertilizers, market, pandemic crisis, integral model, eco efficiency, and internationalization.

Chapter 3 concentrates on the aspects specific to constant communication for community engagement through responsible leadership to manage pandemic. The authors centered their research on the study of the manner in which community engagement uses constant communication in order to manage pandemic though responsible leadership. In this matter, the authors chose the case of India and India's experience of community engagement and responsible leadership demonstrated by national leaders especially Prime Minister (PM) Mr. Narendra Modi using his constant communication as one of the strategies. What is more, as mentioned by the authors, data of Indian citizens through various online communities has been analyzed through qualitative analysis called "Netnography" – representing, as pointed out by the authors, the extension of ethnography. Furthermore, the thematic analysis has been carried out by the authors, which revealed that constant communication as one of the themes helps responsible leader in managing pandemic level crisis. Also, the authors have developed a conceptual model as a research outcome, in order to better facilitate communication at a more specific level, in terms of communication among communities through a leader, thus showing the importance held by responsible leadership through constant communication processes. There are several keywords that may characterize this particular book chapter, as follows: community engagement, communication, leader, responsible leadership, pandemic, Covid-19, netnography, India.

Chapter 4 displays the challenges faced by criminal policy, security and justice in the time of Covid-19. The author of this book chapter mentions the fact that the emergence of the Covid-19 virus in 2020 may be considered one of the most important dangers of human life, which imposed terrible conditions and effects on human society. What is more, as the author pointed out in the book chapter, the international environment was the one that encouraged in diversity and change in various cultural, political, and religious, etc., fields. Furthermore, the author finds himself in the situation in which he faces the challenges of explaining the necessary elements in controlling and reducing harmful and incompatible social phenomena with the nature of existence to design correct and challenging social and scientific models using comprehensive approaches to criminal policy and chaos theory hypothesis. There are several dominant words that may successfully characterize this research, as follows: Covid-19, chaos theory, preventive criminal policy, transcendental criminal policy, social hazards, criminal law and criminology, public criminal law, and international criminal law.

Chapter 5 focuses on the energy market in the Post-Covid-19 world, and a structural analysis of critical factors for China is part of this particular work. The objective of this book chapter is to emphasize a structural model specific to the energy market. The method used by the author was based on interpretive structural modeling, and the matrix of crossed impacts multiplication was applied for classification purposes. Thus, based on the author own notes, a model of twelve factors structured hierarchically in six levels was proposed, in which consumption preferences, regulatory and normative modifications, political restrictions, and planning strategies have the greatest influence on the energy market from the perspective of China. As a result of this, it is suggested to move towards greater participation of public and private actors in renewable energy vectors. The major concepts encountered in this analysis are as follows: energy market, COVID-19, interpretive structural modeling, cross-impact matrix, market analysis, multi-criteria analysis, and sustainable economics.

Chapter 6 illustrates the importance of environmental, social, and corporate governance by avoiding management bias and tax minimization, while reaching a general consensus regarding a minimum global tax rate. The chapter brings a novel approach in terms of the importance of environmental, social, and corporate governance, thus highlighting the necessity of avoiding management bias and tax minimization, while reaching a general consensus regarding a minimum global tax rate. The author notes the fact that the Covid-19 pandemic shock determined nations worldwide to seek support in different forms of international cooperation, realizing that strength is derived from countries' capacity to unite their forces and act together in times of crisis. Also, the author mentions that, faced with the perspective of Covid-19 crisis consequences, states have to adapt, focusing on implementation of robust managerial strategies and concentrating attention on ensuring strong financial systems. What is more, under this given context, on the one hand, in the attempt to provide a healthy life and sustainable development, a balance needs to be established in terms of environmental, social and corporate governance and, on the other hand, in the quest to guarantee fair and transparent tax systems, a minimum global tax rate should be implemented. Nevertheless, the author comes to the valuable conclusion that, in the new economy, the knowledge-based economy, the digitalized economy, business organizations should act in the spirit of sustainability, while centering their efforts on efficiency, productivity, profitability, and performance, and benefiting from the impressive advantages provided by intangible assets. In terms of keywords, the following valuable notions represent the basis of this book chapter: business, management, Covid-19 pandemic, base erosion and profit shifting, minimum corporate rate, corporate social responsibility, international tax reform, intangible asset, and intellectual capital.

Chapter 7 highlights the impact of Covid-19 on Indian migrant workers and the informal sector, emphasizing several policy imperatives. The author mentioned the fact that the Indian and the international media were the ones that presented the Indian migrant workforce's troubles during the Covid-19 crisis, leading to an analysis of the most vital aspects concerning the welfare and wellness of the migrant workers of the informal sector. What is more, the author notes that the literature was sourced from the workforce migration literature of India, newspapers, government and private agency reports, population census of 2011, and research papers published during the period. In continuation, the exploratory research performed by the author has the following objectives: to explore the informal sector's background and the migrant workers of India before the pandemic to understand the immediate short-term implications and the long-term impact of the pandemic across all sections of the informal workers. Furthermore, the research concludes with a discussion on the policy imperatives deemed to have a beneficial effect on the migrant workers in the future years, once the COVID-19 crisis is over. The major concepts brought to light in this book chapter are as follows: migrant, workers, informal, COVID-19, lockdown, policy, labor survey, and India.

Chapter 8 is dedicated to presenting the implications and asymmetries of the knowledge society; in this matter, an analysis of 82 constructs being performed by the authors. The authors mentioned the fact that the term, knowledge society, brings together many of the transformations that are taking place in today's society, and its definition serves as an indicator of these changes. What is more, the authors noted that the related concentrations or asymmetries that arise from the phenomenon are also the subject of analysis and dispute. In this matter, the authors highlighted the fact that its development and scope have been uneven, constantly incorporating new meanings to the existing terminology, which prompted the need to analyze 82 concepts of the knowledge society through a frequency count in Google Scholar, with a subsequent categorization saturating in six dimensions, in order to analyze their framing. The methodology used by the authors was represented by a higher-order association, establishing the most significant combinations and weightings. From these results, the concept of the knowledge society is defined by the dual economic-social category, according to its frequency of use in Google. The authors have shown in their book chapter the economic influences as a determining factor in the knowledge society, engendering processes far from the common good or the general interest. The keywords encountered in this book chapter were as follows: knowledge society, globalization, dimensions, communication, technology, normative asymmetries, and expulsions.

Chapter 9 shows the importance of innovative adaptation in strategic organizational resilience. The purpose of this book chapter was to analyze the implications of the innovative adaptation in strategic organizational resilience, based on the assumption that organizational resilience has a strategic role designed and implemented to promote organizational community resilience to survive adaptive innovation and achieve success after a disaster. The method employed by the author is represented by the reflective and analytical review of the theoretical and empirical literature to clarify the relevant issues of innovative innovation in strategic organizational resilience. The author concluded that innovative adaptation and engineering resilience strategies achieve organizational resilience as the capability to self-renew through innovation. In terms of key notions part of this book chapter, the following concepts appeared to be vital to the author's work: adaptive innovation strategies, engineering resilience, innovative adaptation, organizational resilience adaptability, and strategic organizational resilience.

Chapter 10 points out to the importance of mindfulness business principles and the capacity of producing outstanding value and encouraging community connections with the aid of mindfulness instruments, methods and strategies. The author of this book chapter declares a high interest in these days unprecedented pressure that both individuals and businesses endure, especially when considering changes and challenges brought by Covid-19 pandemic and Covid-19 crisis, especially due to the novelties brought to people's lives and people's way of thinking and of coping with certain situation. In this matter, the author mentions the fact that mindfulness seems to become an integrated part of people's lives, in the attempt to be more concentrated on their daily tasks, more focused on living in the present moment, more determined to eliminate anxiety and stress. What is more, the author mentions the fact that, nowadays, mindfulness in business seems to become a key solution to stronger entrepreneurship and highly successful work-place relationships. Thus, the new economy, the knowledge-based economy, centers its attention on the powerful links and opportunities that may be encountered between well-being, mental health and mindfulness, seeking a way to create valuable mindfulness business principles, capable of producing outstanding results, empowering people, facilitating cooperation, allowing good governance, inducing corporate social responsibility, fostering community connections, enabling competitiveness, supporting sustainability, development and environmental balance. The keywords for this book chapter are, as follows: business, management, economics, accounting, Covid-19 pandemic, creativity, innovation, sustainability, competition, entrepreneurship, leadership, values, communication, work, mindfulness, and well-being.

Chapter 11 addresses the importance of organizational resilience capability and capacity building. The objective of this chapter is to analyze the implications of organizational resilience capability and capacity building and development processes and the posed challenges to its design and implementation. The author based his analysis on the conceptual and theoretical assumptions underpinning the capabilities of resilience that can be learned and designed by organizations to be implemented and applied to adverse conditions. What is more, the author highlights the fact that these underlying assumptions affect the organizational resilience capabilities building. The author researches the conclusion that by building and development organizational resilience capabilities processes the research agenda on the theoretical and conceptual literature and the notions, factors, elements, and challenges may reached increased capacities. The keywords that this chapter targets are as follows: capability building, capacity building, organizational resilience.

Chapter 12 discusses the aspects surrounding the valuable topic of resilience of the hotel industry in Covid-19, shedding a new light on the case of India and the Indian context. The authors mentioned the fact that the Covid-19 had resulted into restrictions on travelling and public get-togethers, thus the pandemic seriously affected the hotel industry. What is more, the authors stressed their belief according to which, in the Post- Covid-19 period, the industry is struggling for its subsistence due to mounting debts, change in behavior and perception of consumers and lack of cash flows, which, in turn, resulted into the loss of employment and has, also, negatively impacted allied industries. Nevertheless, the authors mentioned that the hotel entrepreneurs have shown resilience amid the crisis and have begun to explore novel opportunities, and the hotels have adopted innovative technological and digital ways to satisfy needs of the consumers for a contact-less experience. Based on the authors' notes, it should be mentioned that the objective of this chapter is to explore the responses of the Indian hotel industry to the pandemic and risks associated with it. Also, the authors analyze in their book chapter the new paradigm and challenges for the industry and explains the resultant new trends in the hotel industry, their emphasis being on exploration of long-term recovery and resilience of hotel industry in India along with the policy measures and implications for the hotel industry. The pivotal notions for this book chapter revolve around the following dominant words: pandemic, Covid-19, hotel industry, India, resilience, recovery, policy, and technology.

Chapter 13 brings to light the case of salesmanship skills in Covid-19 times, and concentrates on finding an answer to the major question: "Is there any impact on sales strategy implementation and performance?" The authors noted that the activities that depend on direct interaction with the customers were the most affected by Covid-19's restrictions, which include the activities developed by salespeople, aiming to analyze, in this regard, the impact of salesmanship skills on sales strategy implementation and salesperson performance during the Covid-19 crisis. In order to achieve the proposed research objective, the authors collected a set of data through a survey (n=517) to test a proposed conceptual model based on the literature, and their findings: (a) demonstrate that the salesmanship skills are an important resource in highly disruptive environments and impacts sales strategy implementation and salesperson performance; (b) reveal the important role of digital skills and intrinsic motivation during Covid19 times. The authors mentioned, also, the fact that the results attained can be used as a guide to design an effective strategy for sales activities in adverse times. The key concepts are, as follows: Covid-19, sales, salesmanship skills, sales strategy implementation, salespersons' performance, real estate, digital skills, and intrinsic motivation.

Chapter 14 is closely dedicated to addressing the social reactions to pandemic, thus concentrating on individuals' rising interest in pandemic movies. The author mentions that the Coronavirus disease (Covid-19) has become a global health and economic crisis and has had many impacts on daily life, which led to the necessity to investigate in this current book chapter the effect of the epidemic on movie viewing preferences in Turkey. By using Google Trends data, the author displayed the trends towards epidemic movies with a quantitative analysis method, based on the fact that Google Trends data is a valuable source of information for examining quarantine's psychological, sociological, and health effects. The author also mentions that, in this way, it can be determined which media preferences the society, which wants to get rid of the epidemic's concerns, is turning to. In this book chapter, the author performed the search on IMDb with the keyword "contagion" and movies with an IMDb rating above 6.0 among the listed pandemic movies were examined as sampling, and compared the interest in epidemic films determined three months before and after the epidemic's start. The book chapter suggests an increase in watching pandemic movies, in Turkey, in response to the initial phase of the COVID-19 pandemic. The vital concepts for this book chapter are the following ones: Disease, Pandemic, Covid-19, cinema, pandemic movies, Google Trends, and quarantine.

Chapter 15 centers the attention of the strategic human resource management in the 21st-century organizational landscape, mainly focusing on human and intellectual capital as drivers for performance management. The authors bring a new approach concerning the strategic human resource management in the 21st-century organizational landscape, concentrating on fresh ideas on human and intellectual capital as drivers for performance management. The authors of this book chapter stressed the fact that these days, employability and sustainability on the Romanian marketplace are seriously challenged by the general economic development conditions, the continuously rising living standards, and the unfortunate imbalance and irregularities in the policies of labor markets. What is more, the authors have mentioned that these defining factors mirror in this current research that focuses on describing the importance, implications and specificities of human resource management (HRM) and strategic human resource management in the 21st-century organizational landscape, while seeking to pinpoint the considerable and valuable benefits brought by human and intellectual capital as drivers for performance management at the organizational level. Thus, the authors have pointed out the importance of their findings in today's context, noting that the results of the study themselves possess the explanatory power of showing that human resources are the main assets of the organization, which decisively determines the entities potential for present and future line of action, since human resources have unlimited growth and development potential, even though they are regarded as extremely rare, highly valuable, yet difficult to insure or replace. In essence, the chapter has great relevance and high importance for several domains, such as, for instance, business administration, economics, management, and accounting, shedding a new light on the implications of Covid-19 pandemic and Covid-19 crisis on major fields and from interdisciplinary approaches. The keywords tackled by the authors in this book chapter are, as follows: performance, staff, economic-financial analysis, knowledge, intangible assets, human resource, intellectual capital, intellectual property, environmental protection, sustainability, accounting, and audit.

Chapter 16 sheds a new light on the challenges and perspectives belonging to women entrepreneurship through the Covid-19 pandemic and beyond, and the study itself has both theoretical and practical implications. The chapter investigated the COVID-19 induced challenges faced by women entrepreneurs in Zimbabwe, the strategies used by women entrepreneurs to survive the COVID-19 crisis, and the government support needed by women entrepreneurs to recover from the pandemic. What is more, the author of this chapter used a quantitative research approach by using a structured questionnaire was adopted for gathering data. In continuation, the author noted that the empirical findings illustrate that women entrepreneurship in Zimbabwe face a multiplicity of challenges due to the COVID-19 pandemic, and that the results indicate that women entrepreneurs are cutting down costs, have introduced new delivery channels, and have reviewed their business models to become more resilient. The author mentions the fact that women entrepreneurs also expect the government to offer readily accessible financial, arrange for skills and capacity-building training in response to the new normal as well as crafting economic recovery policies and packages that are tailored to specifically respond to the needs of women entrepreneurs. In terms of keywords, the following important notions were analyzed in this book chapter: covid-19, women entrepreneurship, women entrepreneurs, Zimbabwe, impact, strategies, government support, and challenges.

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In essence, this publication may prove to be greatly treasured by IGI Global readers due to the fact that it offers an immeasurable help in understanding the real impact of the COVID-19 pandemic and the COVID-19 crisis on the new economy development and the societal change and, also, because it enables shaping a sustainable and inclusive future for all individuals around the world. Furthermore, this publication brings to light new insights and develops new initiatives in terms of creating a better and a safer future for all, concentrating on the benefits of the new economy and the advantages of the revival of economic growth, which is a definite plus for this IGI Global publication.

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Chapter 1
Change Management, Organizational Adaptation, and Labor Market Restructuration:
Notes for the Post-COVID-19 Era

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ABSTRACT

The recent transformation caused by the COVID-19 pandemic crisis drives the world economy to an accelerated mutation. This chapter focuses on how the current developments affect the various socio-economic organizations and systems and how they can adapt to this new emerging reality. To this end, relevant forecasts on the current pandemic crisis are examined. This crisis seems to cause the acceleration of the Fourth Industrial Revolution, functioning as a catalyst of the structural changes also observed in the working environment. The chapter suggests that all socioeconomic organizations (irrespectively of their size, spatial reach, and sectorial focus) are called upon nowadays to readjust themselves and that innovation is the fundamental generator for exiting the ongoing structural crisis. However, innovation unavoidably creates significant changes that socioeconomic organizations must manage effectively in the foreseeable future, according to a new way of perceiving organizational resilience and adaptability for the post-COVID-19 era.

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INTRODUCTION

The COVID-19 (hereafter pandemic) crisis leads to a stimulation of developments, facilitating the emergence of a repositioned framework for all levels of today's global economy (Soto-Acosta, 2020; Syani et al., 2020). Within the same, globally transpositioned context, the Fourth Industrial Revolution (4IR) increasingly becomes a force for disruption for various older and relatively saturated—in broad socioeconomic and innovational terms—professions and industries (Bonilla-Molina, 2020; Tiwari et al., 2021). In this profound transformation and paradigm shift for all socioeconomic organizations on the planet, adaptation, survival, and growth can only be uncertain and demanding (Marinov & Marinova, 2021; World Bank, 2020b). According to these general considerations on the global system's evolution, the question arising is how the socioeconomic organizations affected by the current trends can adapt to this emerging global mutation.

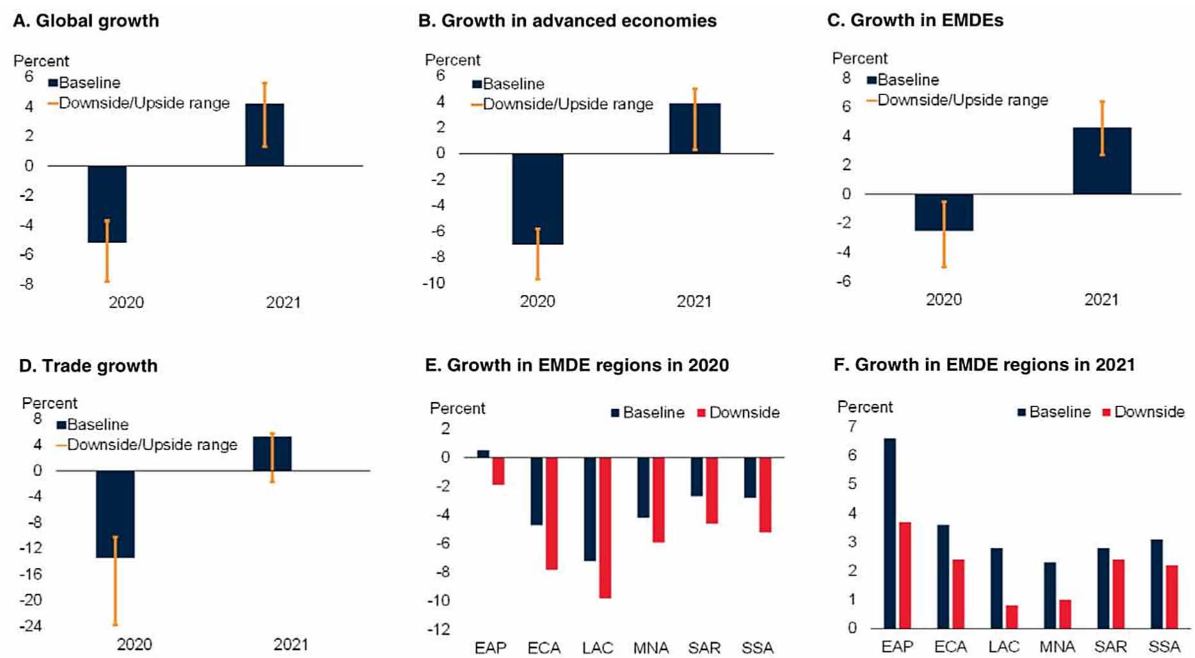
To explore this question and propose solutions, studying the unfolding global pandemic crisis seems to be imperative. This conceptual article will attempt an elliptic examination of the related literature, presenting projections by international organizations on the pandemic and significant developments in labor relations, aiming to offer new theoretical insight on the subject of organizational adaptation (Jaakkola, 2020; Snyder, 2019). In section two, scenarios and forecasts by international organizations are examined, oriented towards the global socioeconomic system's immediate future amid the pandemic crisis. In section three, the basic features of the 4IR are emphasized. The aim is to reaffirm whether the 4IR is accelerated based on the structural changes observed in labor relations. This is the context that leads us to conclude that organizational adaptation (OA) is the predominant ingredient required for the future development of all socioeconomic organizations affected by the crisis. Finally, in section five, conclusions are drawn, suggesting directions for future research.

EMPIRICAL BACKGROUND OF THE COVID-19 CRISIS

Following the worldwide spread of the pandemic since the early days of 2020, the global socioeconomic system has entered a period of unprecedented turbulence and regression. According to António Guterres, Secretary-General of the United Nations (2020), this pandemic crisis leads the whole world to a readjustment. Humanity is in front of extraordinary developments, where the weakest social groups and communities increasingly become more vulnerable. Guterres also speaks of the required swift action for our world to avoid the spread of other diseases and protect from violent extremists to rise in power.[1]

According to the World Bank (2020a), which predicted a slight rebound for the global economy in 2021 based on a series of forecasts, the pandemic crisis has triggered a decisive blow to the already fragile world economy, with the magnitude of the recession being the largest since World War II. More specifically, this report by the World Bank foresaw three scenarios of possible economic recovery for 2020-2021: one consistent with baseline forecasts, a downside of a protracted global recession, and an upside that projects a prompt recovery (Figure 1).

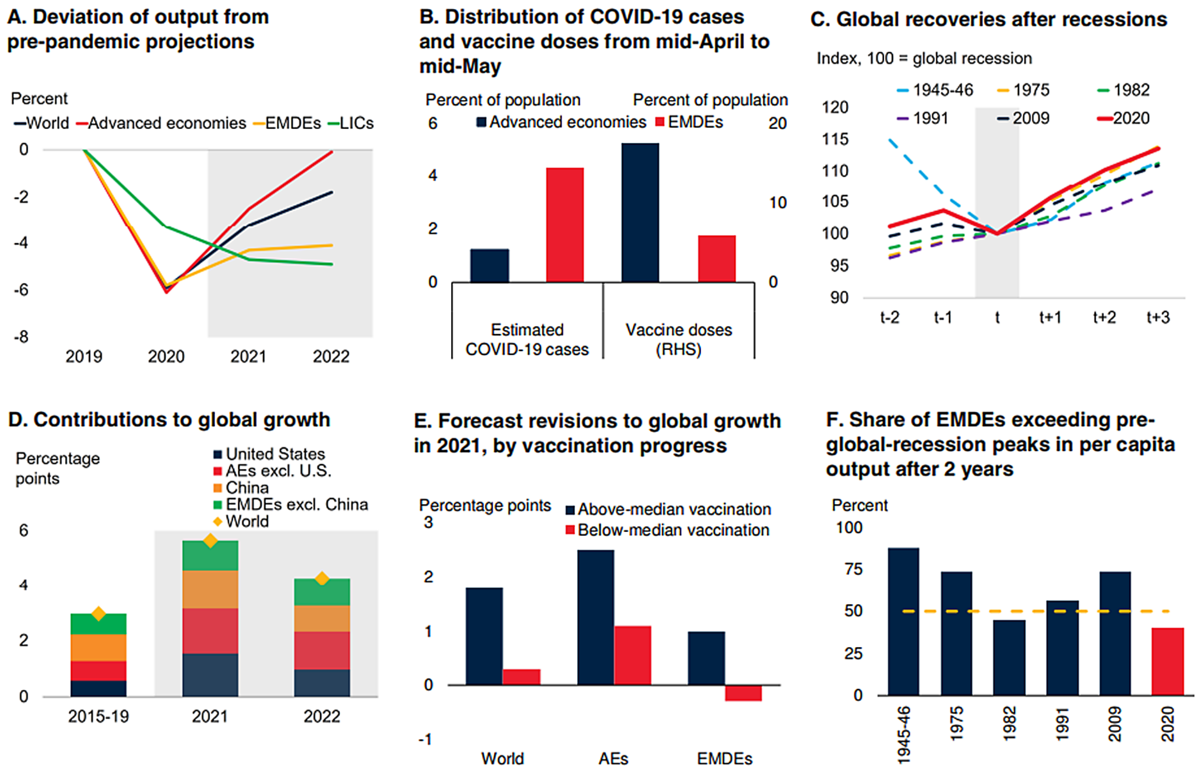
Figure 1. Forecasted global growth outcomes as reproduced from World Bank (2020a) for emerging markets and developing economies (EMDE), East Asia and Pacific (EAP), Europe and Central Asia (ECA), Latin America and the Caribbean (LAC), Middle East and North Africa (MNA), South Asia (SAR), and Sub-Saharan Africa (SSA).



The baseline scenario predicted that global output would contract by 5.2 percent and international trade by 13 percent in 2020 due to the unprecedented disruption of global value chains, the downside scenario that the prolongation of stricter lockdown measures would result in the fall of global output in 2020 by 8 percent, and the upside scenario of a prompt recovery following the quarantine and most health protection measures. The study concluded that the health crisis would leave its mark on investor and consumer confidence; therefore, policymakers need—in addition to continuing with short-term measures to tackle the pandemic—to design comprehensive programs to stimulate and improve the fundamental drivers of economic growth.

Finally, the global economy moved in the upside scenario's range since, as noticed by the updated respective report by the World Bank (2021), the global output's contraction was 3.5 percent. The advanced economies recorded a 4.7 percent recession, the emerging market and developing economies 1.7 percent, respectively, and international trade fell by 8.3 percent. In aggregate, the updated report projects an uneven rebound for the various economies and socioeconomic actors, especially for impoverished countries (for example, Pattenden et al., 2021, notice that the pandemic's impact mainly worsened the conditions for the labor classes involved in precarious casual labor, reproductive labor, and petty commodity production). This uneven recovery is (to some extent) mitigated by the projected significant global growth of 5.6 percent in 2021. However, the report forecasts that this scenario (by also considering the significant projected global growth of 2022) will not drive the global economy to surpass the pre-pandemic expectations and, as a result, the current global recession does not lead to a usual recovery cycle since growth inequalities are unprecedentedly intensified (Figure 2).

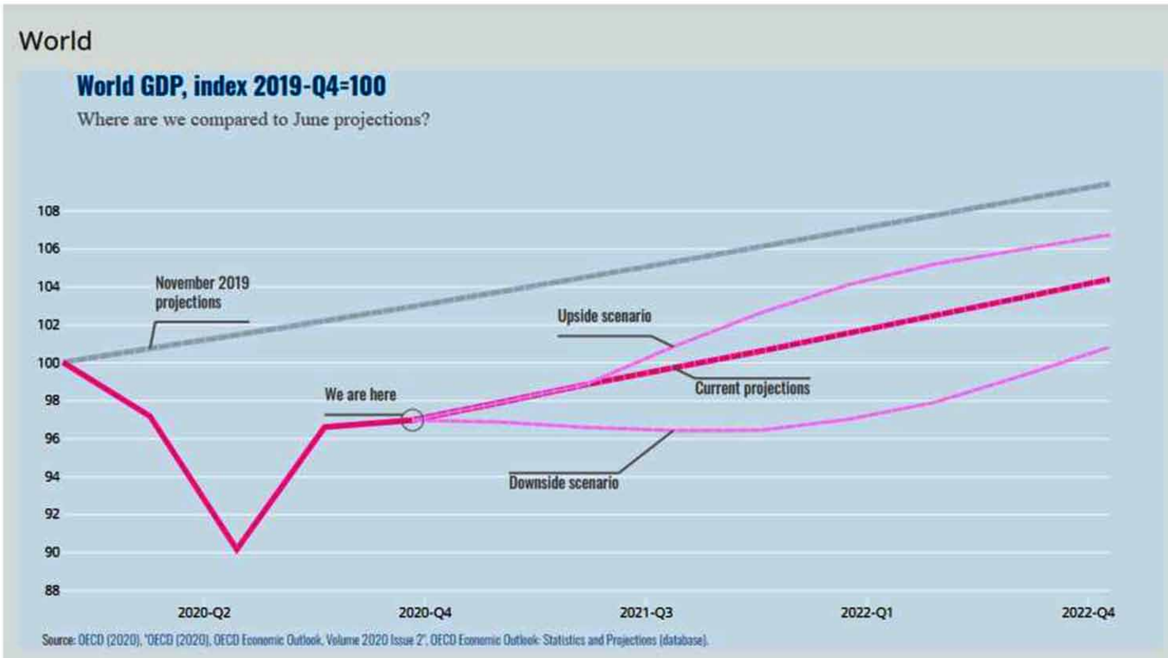
Figure 2. Forecasted global economic prospects for the world, the advanced economies (AEs), the emerging markets and developing economies (EMDE), and the low-income countries (LICs).
Reproduced and minor edited (only changed the figures' order of appearance) from the World Bank (2021).



In a similar vein, the International Monetary Fund (IMF, 2020) described this crisis as "like no other," having forecasted for 2021 a slight rebound based on specific scenarios. The International Labor Organization (ILO, 2020) pointed out that working-hour losses due to quarantine measures and social distancing have accounted for four hundred million full-time jobs. Accordingly, the World Trade Organization (Azevêdo, 2020) has forecasted that the COVID- 19 recession and socioeconomic crisis is expected to surpass the preceding economic crisis of 2008-2009 in most indices. A spread and reinforcement of underdevelopment is another concern of COVID-19 dynamics, with specific international organizations noticing that new forms of exclusion and lagging might occur in the foreseeable future (FAO, 2020; OECD, 2020b). Also, various industries and economic sectors, mostly in developing countries, seem to be violently readjusted, entering into a trajectory of profound transformations due to a loss of significant value-added (International Civil Aviation Organization, 2020; International Energy Agency, 2020; Matthewman & Huppatz, 2020; WHO Director-General, 2020).

In this reframed global context, an issue that actively concerns scholars and policymakers is the shape the recovery of the world economy will take in the future. For example, the OECD (2020a) suggested a V-shaped return for global GDP in 2021 and 2022 after a steep decline in 2020 (Figure 3).

Figure 3. OECD V-shaped forecast.
Source: OECD (2020a) and OECD Economic Outlook: Statistics and projections database.



Also, the European Central Bank (ECB, 2020) forecasted a more moderated version of recovery for the euro area, pointing out that it is impossible to evaluate the full impact of the pandemic. According to this forecast, real GDP growth in the euro area is not expected to increase more than 1.3 percent in 2021 and 1.4 percent in 2022 (Figure 4).

Figure 4. Euro area real GDP growth forecast.
Source: ECB (2020).

Although various scholars appear relatively recently to support a V-shaped rebound for the world economy, which suggests a rapid recovery after the recession, this seems increasingly infeasible (Beech, 2020; Gómez-Pineda, 2020; Gregory et al., 2020; Lawrence & Homer-Dixon, 2020). Unfortunately, an L-shaped rebound seems the likely outcome for various cases since the less-developed socioeconomic systems that lack resilience, adaptability, and innovation might not benefit when international trade begins to recover in the restructured global and sectoral environment (Arbolino & Caro, 2021). Overall, it seems that the world has entered an irreversible trajectory of rebalances, with the post-pandemic recovery appearing unequal across the different regions and socioeconomic actors around the globe.

THE WORLD OF WORK AND PRODUCTION IS CHANGING PROFOUNDLY AMID THE FOURTH INDUSTRIAL REVOLUTION

A well-known approach to studying these radical global reversals is the Fourth Industrial Revolution (4IR).[2] Industry 4.0 was the first related term, and it was suggested in a high-tech strategy project by the German government to support manufacturing's computerization (BMBF-Internetredaktion, 2016). The subsequent invention of the "Fourth Industrial Revolution" concept is primarily attributed to K. Schwab, Founder and Executive Chairman of the World Economic Forum, who used the term in an article related to foreign affairs and later at a meeting in Davos in 2016. Schwab (2015) introduced this concept by suggesting that our world is in front of a technological revolution that will profoundly change how we live, work, and relate with each other. This transition will not resemble anything humanity has encountered so far concerning the scale, scope, and complexity. In the same analysis, Schwab also noticed that the response to our world's shared issues must be integrated and comprehensive, including all private and public stakeholders and from all fields. The 4IR follows the sequence of earlier developments in human history, oriented primarily at worldwide technology application and diffusion in paradigmatic terms (Perez, 2010). The first industrial revolution used water and steam power to mechanize production. Electric power was used by the second to produce mass output, while the third used electronics and information technology to automate manufacturing. Nowadays, the 4IR builds upon the third, driving forward the digital revolution that started in the late twentieth century (Braña, 2019; Loureiro, 2018).

The most extraordinary element noticed by 4IR scholars is the diffusion and evolution of the "cyberphysical systems," meaning the fusion of technologies that drives an increasing blurring between the boundaries of the physical, digital, and biological spheres (Gill, 2008; Schlick, 2012). Schwab (2016) also notices that humanity is faced with the opportunity of income increase and diffusion of cost-efficient products and services, accompanied by the threat of manual labor substitution by automation and exacerbation of social tensions and inequality. Concerning the impact in business, Schwab argues that it becomes progressively challenging to predict what changes innovation brings forward and, therefore, incumbents will be disrupted at a faster pace than before by the newcomers. This development reinforces the demand-side drastically, giving consumers new options.[3]

By reflecting on this changing context of the global socioeconomic system, the emerging challenges in labor relations are presented below. Such an analysis would allow us to discern the acceleration of the 4IR due to the global pandemic crisis. Therefore, concerning the labor market's ongoing reorganization, according to the ILO (2021d), the numbers of teleworking—that used to be in the low single digits—have grown immensely after the COVID-19 outbreak. Post-COVID-19 teleworking accounts for more than 33 percent in Europe, approaching 50 percent in the United States. In a related report about the impact of COVID-19 on wages, the ILO (2021b) has estimated a 10.7 percent decline in global labor income for the first three quarters of 2020 compared to the same period of 2019. In the same report, the ILO concludes that the COVID-19 pandemic crisis did not affect all industries the same, with the sectors hardest hit being wholesale and retail trade, accommodation and food services, and other sectors where women tend to be the working majority.

Regarding more specific issues in the working sphere, the pandemic has caused poor human relations due to a lack of meetings and interactions among peers within enterprises. Simultaneously, it may deliberate illegal practices to avoid changes in regulating employment relations and hiring bans (Ostrovskaia, 2020). Many firms have tried to transform the legal status of employment relationships to a business-to-business (B2B) relation between a company and an independent contractor in those turbulent circumstances because this B2B practice helps them reduce taxes, regulations, and employers' commitments to the workers (Mora Cortez & Johnston, 2020).

Nevertheless, the parties concerned have declared a common will to continue a more cooperative relation during the post-COVID-19 period. Thus, a vital recommendation by the ILO (2021a) is that policymakers should implement recovery strategies based on social dialogue procedures, promoting the transition to a more inclusive, resilient, and sustainable world of work. Furthermore, tripartite concertations are expected to face considerable challenges in the new labor market landscape since the venture of working from home during the last months of the pandemic has become the new normal for many bread-earners and trade unions appear less adaptive to this new environment than employers (ILO, 2021c).

In this post-COVID-19 context, employers should accept the new scenery by dealing with employees' work-related stress, managing health and safety beyond the workplace, monitoring performance, reengineering working schedules, and coordinating personnel remotely. Moreover, workers that choose to work from a distance in a lower-cost zone could be paid less than their colleagues commuting from higher-cost areas. Those jobs that are not required to be located in expensive metropolitan work environments could move to low-cost in-country workplaces or beyond the country borders, i.e., service off-shoring. Therefore, the degree of that kind of "telemigration" depends on the "teleworkability" of each occupation itself (Sostero et al., 2020). Furthermore, remote employees have repeatedly stressed that they feel they do not do a constructive job and are isolated. This trend is exacerbated considering the difficulties of separating working and non-working life, especially when work and domestic tasks and responsibilities co-exist in the same place. Stress, psychosocial risk, and uncertainty are significant issues that multiply their dynamic nowadays since working outside the regular working environment can lead to longer, unsocial, and irregular working schedules (Eurofound, 2020).

Another trend that must be considered is that national labor legislation and industrial relations institutions have been developed around worksites. Therefore, nowadays, trade unions should avoid dispersing workers since this can weaken their rights and bargaining power towards the employer-side (Markey, 2020). In this context of profound alterations in the labor market, concerns have been raised that the home-based workers will undertake a part of the costs (i.e., cost of equipment, broadband availability). For the rest of the workers, an improvement of occupational safety and health measures, including organizational changes, avoiding crowding, and providing protective equipment, is needed (Schall & Chen, 2021). Concerning the organization-wide changes, these refer to work practices that include working from home, virtual teamwork, leadership, and management. This trend has been accelerated by the urgent necessity for social distancing provisions, which has obliged various companies to decentralize their functions in regional business units. This digital transformation is a challenge for employee commitment and engagement since poor communication or a lack of face-to-face interactions can cause further deterioration of employee relations (Collings et al., 2021).

The post-pandemic working environment has expanded the opportunity of remote work among younger and lower qualified employees primarily, and these occupational gaps (digital divide) have been reflected in remarkable differences regarding wage and educational level in teleworkability. This kind of development could foster the division between a "digital precariat" and a "labor aristocracy," and, thus, if the latter separates into an upper sphere of the labor force, social distances might be much more extensive, and social integration could be less successful (Calderón-Gómez et al., 2020; Sutherland et al., 2020). Finally, it should also be mentioned that recent studies have shown that older employees are more likely to comply with preventive measures against COVID-19 and advance their knowledge and technical skills if they need to work from home, which means that they can be better prepared for the digital competencies that will be necessary at the workplaces in the future (Kooij, 2020).

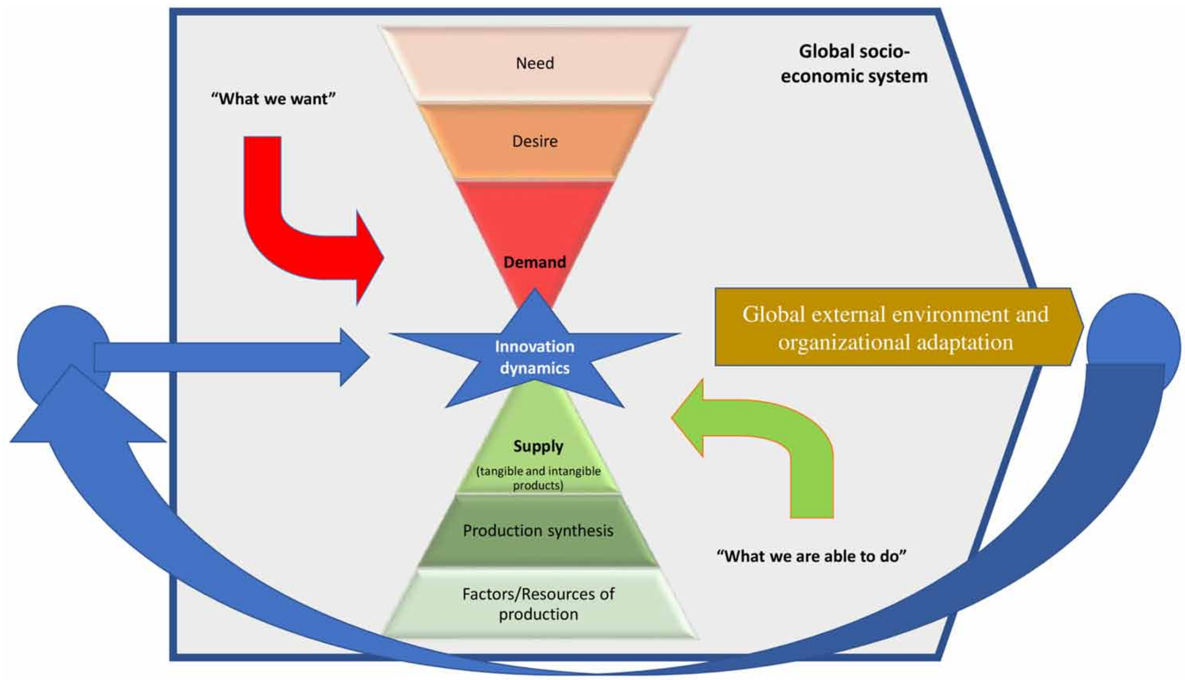
These developments lead us to conclude that the 4IR is accelerating today. Mixed forms of face-to-face and remote working and organizational readjustment have become a reality for many socioeconomic organizations. The bottom line is that many workers may find themselves at lower incomes, which will lead to an increase in inequalities. This adverse development results from shortcomings (in employability terms) in new knowledge and skills to meet the intellectual capital requirements in modern organizations (Andrikopoulos, 2010). These are manifested in vulnerable workers employed in less-adaptable local business ecosystems and lower-competitiveness industries. What remains to be explained is how we can tackle this crisis and gain improved returns (as employees, as companies, and, more generally, as socioeconomic organizations). The following section focuses on intra-business and intra-organizational issues of a strategic nature, whose reevaluation for the post-COVID-19 era seems necessary.

HOW CAN THE AFFECTED SOCIOECONOMIC ORGANIZATIONS READAPT?

By delving into the firms' micro dimensions, it can be argued that the pandemic has encouraged flexible working arrangements through rapid consultations. Current working conditions have offered new opportunities for employee voice and labor-management partnership schemes for designing and implementing effective anti-crisis responses (Merone & Whitehead, 2021). This acceleration of organizational innovations—or deteriorations—would not have reached this scale if the pandemic crisis had not outbroken and spread across the world. What should now concern employees and employers (and any other socioeconomic organization) is generating innovation and improving performance, capable of leading out of any vicious circle spiral. However, innovation always creates change, which must be managed effectively to bring positive results for the whole organization.

Therefore, all organizational changes must be examined under the prism of the required innovation in generic terms (diagonal, vertical, and horizontal; Torfing et al., 2012). From a neo-Schumpeterian perspective, innovation is the "creative destruction" of older and aging organizational configurations due to the "entrepreneur's ambitions" who, in search of profit, is driven to the introduction of new products and new production and marketing methods (Rahmeyer, 2016; Vlados & Chatzinikolaou, 2020). Innovation is not born in a vacuum. Innovation always concerns the evolutionary matching between the production and demand potential (Figure 5).

Figure 5. Innovation is the evolutionary outcome of matching supply and demand, based on Vlados and Chatzinikolaou
(Vlados & Chatzinikolaou, 2020).



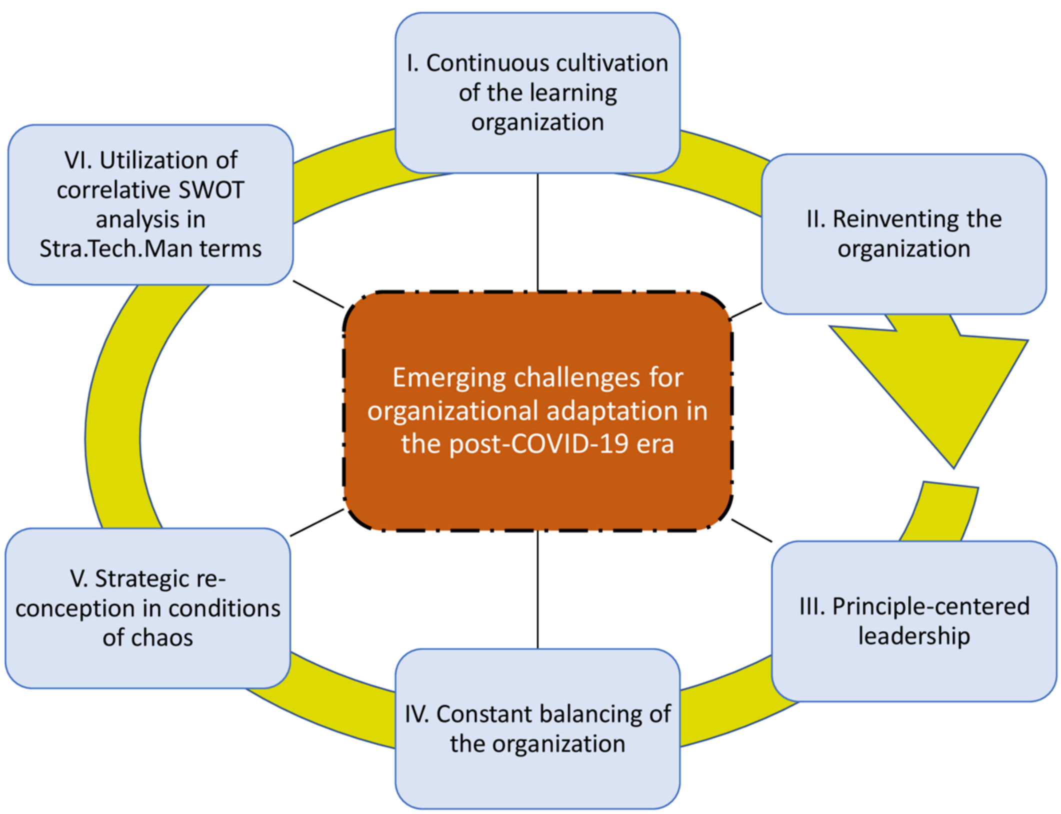
Although it is primarily suggested that innovation comes as a market-pull or technology-push outcome, these two spheres combined give birth to the new condition and practice within any organizational system (Di Stefano et al., 2012; Peters et al., 2012). Specifically, supply refers to "what we can do," while demand to "what we want." Supply is about finding the proper resources and factors of production, synthesizing them, and offering products and services. On the contrary, demand refers to the unavoidable appearance of human needs that first transform to desires—and then to specific product demands.

Today's mega wave of innovation based on cyberphysical systems is associated with the continuous matching of demand for more sophisticated production systems with their respective supply in various socioeconomic organizations and industries. This perspective can be argued to be the core of the sought-after digital transformation in different industrial niches of the global economy (Hanelt et al., 2020). What is not clear is the context in which effective change management brought about by the diffusion of these new innovative labor and production systems can be achieved. In other words, the adoption of a new organizational adaptation framework is inevitable, something that the literature on the 4IR and the currently restructured labor relations does not seem to focus on, and this effort will be undertaken until the end of this section.

To this end, it must be noticed that socioeconomic organizations evolve and adapt—this realization has deep roots in the economic intellect. Already since Veblen (1898), it had been highlighted that a cumulative process of adaptation for all individuals in economic life exists, while Marshall (1890)—although the founder of neoclassical economics—had argued that "The Mecca of the economist lies in economic biology" (Hodgson, 1993). Concerning the organizational adaptation (OA) concept, the widely-cited work by Hrebiniak and Joyce (1985) is a significant point of reference. In this, it is pointed out that OA is about a multidisciplinary field because it "*is the subject of inquiry in organizational behavior, management, and economics*" (Hrebiniak & Joyce, 1985, pp. 346–347). Overall, it is suggested that evolutionary OA is about strategic choice and environmental determinism in the sense that "*adaptation is determined from without, as the environment selects organizations and allows only those forms with appropriate variations to remain*" (Hrebiniak & Joyce, 1985, p. 338). More recently, other scholars follow similar patterns, observing again the intentional decision-making involved, which leads to "*observable actions that aim to reduce the distance between an organisation and its economic and institutional environments"* (Sarta et al., 2021, p. 1).

This choice and environmental stimulus context are predominantly discussed as a new framework for OA amid the pandemic. This crisis offers opportunities for organizations to accelerate their transition and address various emerging challenges, including "*safe and secure digital information between informants and handlers, remote access to sensitive databases, electronic payment and transfer of informant-related finance, and enhancing the use of online communication (including recruitment and tasking)*" (Stanier & Nunan, 2021, p. 3). Therefore, the message of OA theorists is clear: the pandemic is a significant environmental change that requires the reintegration of organizational processes that pre-dated the outbreak (Khanal et al., 2021).

Figure 6. Emerging challenges for organizational adaptation in the post-COVID-19 era and a reconsideration of the remedies.
Authors' suggestion.



Nevertheless, the context of OA for the post-pandemic era is still at the first stages of development in the literature. Therefore, significant contributions in organizational change management can illuminate the field of OA, aiming to offer remedies for treating "illnesses" that inevitably appear today in exogenously and endogenously transformed socioeconomic organizations (Vlados, 2019b). In general, today's need for managing change leads us to (re)update and (re)position some of the basic principles in the theory and practice of organizational adaptation for the post-COVID-19 era: (i) continuous fostering of the learning organization, (ii) systematic reinvention of the organizational perspective altogether, (iii) refocus on the principle-centered leadership, (iv) empowerment of continuous balancing of the organization, (v) re-conception of the strategy in conditions of chaos, and (vi) systematic utilization of correlative SWOT analysis in Stra.Tech.Man terms (Figure 6):

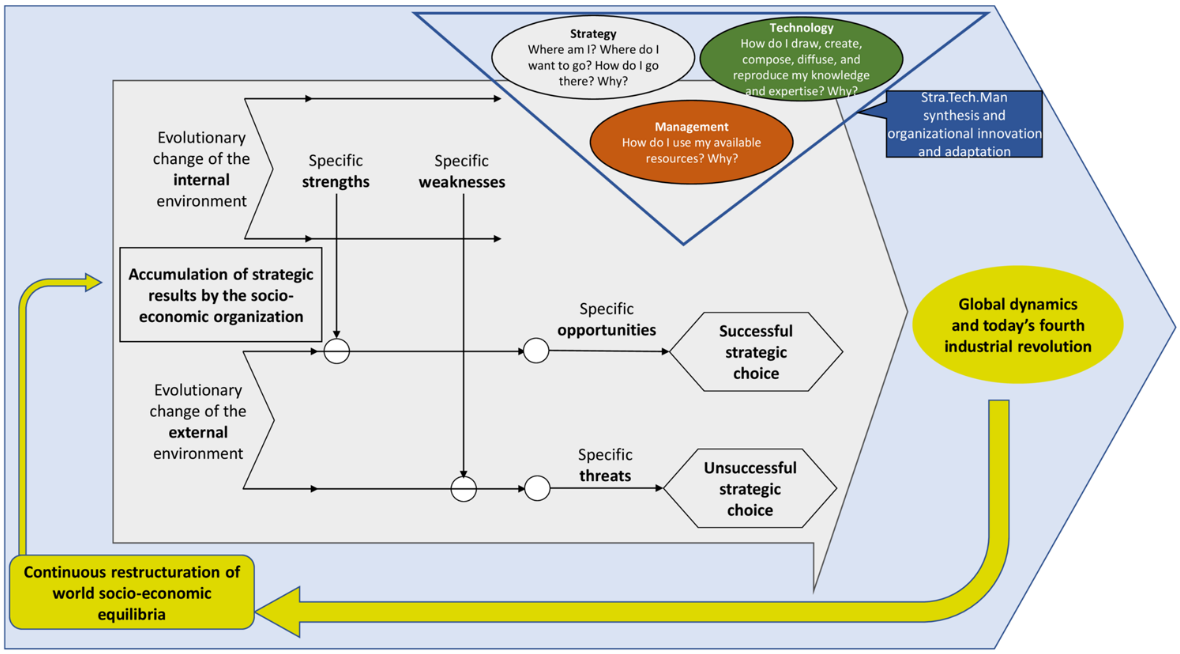
I. Continuous cultivation of the learning organization: This is the organization that all its members, irrespectively of hierarchy and expertise, are responsible for identifying, analyzing, and solving practical problems, allowing the organization to experiment, learn and continually improve. According to Senge (1990), the real challenge faced by humanity is our inability to grasp and manage human systems. The term "learning organization" refers to flexible, responsive, and adaptable organizations in their environment, which are not that bureaucratic. The fundamental element of this learning organization is the overwhelming increase in productivity that could manage to create and offer to its members a working environment that reflects their values. Senge stresses that hierarchy is still there even in extreme cases of highly networked organizations. However, this hierarchy is primarily of guiding principles and ideas, and, as a result, the hierarchical distribution of power in learning organizations is vastly different from traditional organizations. Overall, the term learning organization refers primarily to a step-by-step cognitive development for the entire organization.
II. Reinventing the organization: According to Goss et al. (1993), reinvention is a journey full of requirements and ups and downs. Those riding the "roller coaster" must be prepared for a ride full of challenges. When a company decides to follow the reinvention process, it must unveil and then change the hidden assumptions and foundations upon its decisions and actions are based because the unspoken past realities dictate what is available for the future. Therefore, for an organization to reinvent itself, it must uncover its "secrets." Organizations are usually failing because they base their future development only on their past practical experience. Goss et al. suggest that it is meaningless to do the same things repeatedly and expect different results—a problem found in complacent managers that tend to overconcentrate in the organization's past belief system. In the background, reinventing the organization means being capable of rigorous and patient self-criticism and not reacting like a threatened aristocracy that has to restore old "certainties."
III. Principle-centered leadership: According to Covey (1989), various defense mechanisms react in organizational transformation. When a company faces irreversible problems, all stakeholders must be expressing the firm's way of thinking. The goal is to understand what constitutes the company's consciousness because the principles and beliefs of managers about the company's strategy are less significant than the unconscious strategies implemented. From an overarching perspective, principle-centered leadership refers to realizing that leadership means the ability to embrace change and that changing requires unearthing and commitment to the organization's fundamental principles.
IV. Constant balancing of the organization: According to Duck (1993), the management model that is usually sufficient for day-to-day issues is not enough for change management since it resembles a patient that receives five surgical operations simultaneously, which can cause a death out of shock.

Breaking down change into smaller pieces is not enough since the management must handle the dynamics of change. Therefore, the real challenge is to bring innovations primarily in the intellectual sphere of work by simultaneously balancing all the pieces of the organizational puzzle. Most commonly, employees do not believe in the positive outcome of change and distrust the organization's new path. They tend to believe in organizational change only when they can see an action or behavior and the relevant results that confirm that the underlying change program is working. Overall, this "art of balancing" means that change management is an orchestrated effort that has to be undertaken by all stakeholders involved.

V. Strategic re-conception in conditions of chaos: According to Kotler and Caslione (2009), the world has entered an irreversible chaotic environment, and, therefore, most organization-wide improvement attempts have a significant impact on company performance. In the programs focusing on taking measures, a fundamentally flawed rationale tends to confuse the goals with the means and the process with the outcome. Various attempts to change end up with failure since the management might reject applicable improvement processes—by looking for the impossible—leaving finally empty-handed. The authors suggest setting up an integrated cycle of implementation and reaction in chaotic conditions and a plan for executing strategic behaviors to adapt to the new "chaotics." In generic terms, this chaotics approach emphasizes the continuous re-strategizing of the organization to gain an advantage among the competitors.

VI. Utilization of correlative SWOT analysis in Stra.Tech.Man terms: According to Vlados (2019a), to innovate, all organizations must exploit their comparative strengths, taking advantage of the opportunities presented to them over time. Accordingly, they must avoid the potential threats created by their "correlative" and evolutionary weaknesses. There are no shared opportunities and threats for all socioeconomic organizations—irrespectively of industrial/sectoral focus—and these must be understood and reexamined according to the historical formulation of the specific strengths and weaknesses. These accumulated strategic results lead to organizational adaptation combined with organizational technology and management (the "Stra.Tech.Man" synthesis). Moreover, this dynamic synthesis of organizational adaptation will determine whether various socioeconomic organizations will be left behind in development terms in the emerging idiosyncratic environment. All socioeconomic organizations only behaviourally can adapt because they are boundedly rational. Therefore, it is a fact that evolutionary biology has entered economic theorizing, and organizational innovation and adaptation for all socioeconomic organizations must be observed as the outcome of evolutionary synthesis between strategy, technology, and management. These correspond to the following sets of questions: Strategy is "*Where am I? Where do I want to go? How do I go there? Why?*" Technology is "*How do I draw, create, compose, diffuse, and reproduce my knowledge and expertise? Why?*" and Management is "*How do I use my available resources? Why?*" Finally, the correlative SWOT in terms of Stra.Tech.Man refers to finding the historically formulated and comparative strengths and weaknesses that lead to potential opportunities and threats based on clarifying the organization's strategic, technological, and managerial foundations (Figure 7).

Figure 7. Organizational innovation and adaptation as the outcome of evolutionary synthesis between strategy, technology, and management. This figure extends the model presented in Vlados (2019a).



These are not the only approaches to change management, but they are prerequisites. They should be considered for improvement and organizational adaptation nowadays, even for small firms in the informal sector, who are the primary employers in many less-developed socioeconomic systems (Webb et al., 2020). An organization's choice depends on the strategy. It cannot be argued that a reinvention of the organization is "better" than the learning organization approach, nor that the chaos perspective is more effective than the Stra.Tech.Man theorization. However, it must be noticed that only the "Stra. Tech.Man approach" has been used as a diagnostic and consulting tool for smaller firms (Vlados & Chatzinikolaou, 2019). The other presented change management and strategy-rethinking perspectives concern primarily medium to larger organizations.

In conclusion, all socioeconomic organizations—irrespectively of their size—must readjust themselves nowadays. The fact that innovation must be the primary pursuit for the exit of the (continuous) crisis needs to be a common ground. However, innovation inescapably creates changes that must be managed in the most effective way possible.

CONCLUDING REMARKS

We authored this article both for the employees and the business practitioners that must adapt to the current pressing conditions created by the pandemic and the Fourth Industrial Revolution. Our goal was to highlight the changes occurring in the entire global socioeconomic system and how these affect the world of work and businesses. Based on the profound changes materializing nowadays in the labor environment, we showed that the pandemic accelerates the 4IR. The question that arose was whether organizational adaptation and change management could help the socioeconomic organizations (such as trade unions and employers) transform in the right direction. The current transition to the post-COVID-19 era shows that employees and employers must introduce change management and organizational adaptation methods.

The main suggestion by focusing on the micro-level was that the exit from the (continuous) crisis requires innovation, which unavoidably leads to changes that must be effectively managed. Based on this context, change management and OA approaches were examined as potential remedies for all socioeconomic organizations transformed today (employees, unions, and any other stakeholder of a production effort).

Overall, this study reaches specific conclusions that can prove significant towards understanding and promoting the required post-COVID-19 organizational adaptation. The following notes constitute the epicenter of this chapter's contribution:

1. The COVID-19 crisis causes significant transformations in the global socioeconomic system. According to recent data, the pandemic crisis and the entailing socioeconomic crisis have driven an unprecedented recession and structural destabilization of various institutions. As it seems, the expected recovery will not lead in the foreseeable future to achieve the envisaged pre-pandemic growth rates globally. As a result, the likely growth outcome seems of "L-type"—most indices and perspectives for the less developed and resilient socioeconomic systems will move at comparatively lower levels, ending with relatively weaker growth and development rates in the immediate aftermath of this crisis.
2. The acceleration of the 4IR leads irreversibly nowadays to the restructuration of the working environment, generating notable challenges on the future perception of human resources and labor (immediate and far future). The most significant readjustment concerns the continuous digital transformation that seems imperative to all socioeconomic systems, with the diffusion of the "cyberphysical systems" leading the less adaptive employees and firms to the need for building new skills and knowledge.
3. The exit of this socioeconomic crisis (after the direct consequences of the pandemic) seems to require the various actors to reposition their organizational adaptation ability and resilience, emphasizing the strategic structuration of new digital skills and the need for constant innovation in generic and holistic terms. In this context of the necessitated innovational reinforcement, the generation of the prerequisite change management mechanisms is vital to all socioeconomic organizations and systems (businesses, workers, and institutions globally).

These points lead to perceive the necessary effort for fertile adaptation into the new conditions in simultaneous micro, meso, and macro contexts. The partial and fragmentary perspectives are relatively insufficient to offer a sustainable future solution. As it seems, systematic training programs for employees are a significant policy direction for the future, supporting the various business ecosystems to reinforce their adaptation and resilience potential (Vlados, 2021). However, this kind of approach to either international strategies or various national policies to strengthen the different local and industrial systems that host entrepreneurial activity falls into the scope of a future study.

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KEY TERMS AND DEFINITIONS

Evolutionary Organizational Adaptation: Even though adaptation is determined externally since the environment selects organizations and allows appropriate variations to survive, organizational adaptation derives from environmental determinism and strategic choice simultaneously.

Fourth Industrial Revolution: This new reality builds upon the third industrial revolution, driving the digital revolution that started in the late twentieth century and the further socioeconomic deployment of the "cyber-physical systems," increasingly blurring the boundaries between the physical, digital, and biological spheres.

Neo-Schumpeterian Innovation: It concerns the evolutionary matching between the production and demand potential, causing the "creative destruction" of older and aging organizational configurations due to the "entrepreneur's ambitions" who, in search of profit, is driven to the introduction of new products and new production and marketing methods.

Post-COVID-19 Change Management: It concerns the constant (re)update and (re)position of the fundamental change management principles, such as continuous fostering of the learning organization, reinventing the organizational perspective, refocusing the principle-centered leadership, reinforcing the organizational balance, reconceptualizing the strategy in conditions of chaos, and utilizing the correlative SWOT analysis in Stra.Tech.Man terms (strategy-technology-management synthesis).

Post-COVID-19 Era: This evolutionary phase concerns the period emerging after the COVID-19 crisis, which leads the global socioeconomic system and the various actors at all levels (macro-meso-micro), respectively, to irreversible transformations, laying the ground for the appearance of an entirely new form of globalization.

Post-COVID-19 Working Environment: This new post-COVID-19 framework signals a new labor market characterized by significant divergence regarding wage and educational level primarily in tele-workability, requiring now the continuous advancement of digital competencies for future workplaces.

ENDNOTES

1. However, extremism in politics is not new: See the research by Van Der Brug and Fennema (2003) and Arzheimer and Carter (2006).
2. And other approaches to global transformation have also been developed besides the 4IR, although not as popular, even though they have significant interpretive power. The framework of the "new globalization" is one relevant perspective (Bhattacharya et al., 2017; Vlados, 2019c).
3. See the related concept of "prosumer" for the future energy sector: Kotilainen et al., 2016.

Chapter 2
Changing the Dynamics of the Market of Fertilizers in Mexico:
A Comprehensive Sustainable Entrepreneurship Model for the Organic Fertilizer Business During the Pandemic

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ABSTRACT

This chapter aims to analyze the market of fertilizers in Mexico during the pandemic crisis. This analysis of the fertilizer market in Mexico points out that the consumption of fertilizers has undergone a change in the structure in favor of consumers with the highest concentration and diversification. The method used is the analytical-descriptive and the critical reflexive based on the quantitative data obtained from secondary sources. The functioning of an integral model of entrepreneurship in green innovation business (GIB) that is currently emerging and in the process of internationalization is analyzed. This chapter analyzes a particular company that specializes in ecological biomineral organic fertilizer where no chemical product is used to produce the composition. Everything that is marketed is made up of a base of organic minerals and other organic compounds.

INTRODUCTION

The Mexican Government's National Fertilizer Program aims to address the problem of low availability of national fertilizers at competitive prices for small producers. It includes chemical fertilizers and bio-fertilizers. The National Fertilizer Plan aims to reduce dependence on the import of these fertilizers. To achieve this, the Cosoleacaque Petrochemical Complex plants and the Pajaritos plant are reactivated to produce ammonia, an input to produce urea, which Mexico imports mainly from Ukraine. In the case of phosphates, in the Pacific, the Lázaro Cárdenas plant is operational and is the largest in Latin America.

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The National Biofertilizer Program shows incipient progress. The fertilizer production in Mexico estimated for 2019 was 1.85 million tons, reflecting an annual reduction of 2%; while demand continues to rise, with a record estimate of around 5.5 million mt. However, by July 2020, the production volume of nitrogen fertilizers in Mexico almost reaches 48,800 metric tons, which represents a decrease of 32.7% compared to that reported during the same month in 2019. The production volume of phosphate fertilizers in Mexico exceeded 75,600 metric tons, which represents a decrease of 29.1% compared to that reported during the same month in 2019 (Burgueño Salas, 2020).

Currently, there is a new business model which has as the objective to be eco-efficient. Eco-efficiency is defined as the production of products and services at competitive prices that meet human needs and provide quality of life, while the ecological consequences and the use of numerous resources during the life cycle are progressively reduced at the level equivalent, at least, to the estimated capacity of the planet (World Business Council for Sustainable Development, 1991).

On the other hand, it is mentioned that eco-efficiency has the purpose of establishing production of manufactured products of high durability and reducing the intensity in the application of energy to produce goods and services. Also, the eco-efficiency has the purpose of maximizing the use of raw materials, managing, and disposing of hazardous materials and waste in an efficient and environmentally acceptable manner, have management systems and environmental quality, as well as procedures in occupational safety and health, among other provisions, that will bring them financial benefits and competitiveness (Cantú, 2008, page 78).

In both definitions, the authors agree that eco-efficient companies should have as their main objective, to develop quality products at competitive prices, as well as to reduce the environmental impact of producing or offering their products and services. Castro (1998) mentions that eco-efficiency aims to address three relevant aspects that correspond to 1) the total quality, which involves productivity and quality in the company, 2) the preservation of the environment, which is related to sustainable development; 3) occupational health and safety (Castro, 1998).

FERTILIZER DEMAND IN MEXICO

A recent analysis of the fertilizer market in Mexico has pointed out that the consumption of fertilizers has undergone a change in the structure in favor of consumers with the highest concentration and diversification (UACH). This situation has contributed to a drop in the consumption of fertilizers because the farmer's real income has fallen.

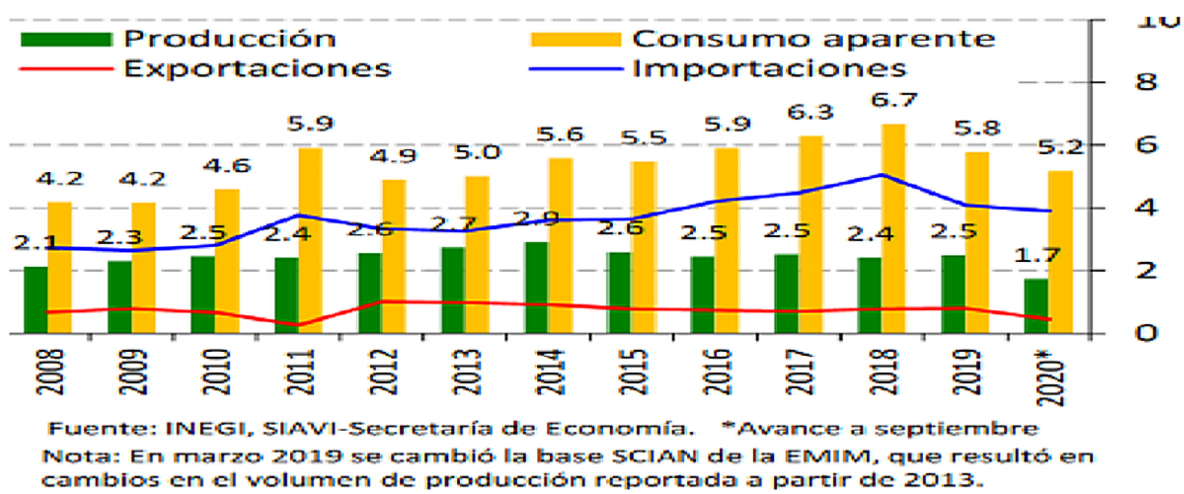
On the change in the consumption pattern (sources), I have no hard information about it. From experience in the field, it can be stated that there has been a growth in the use of physical fertilizer mixtures where the distributor makes certain formulations, mixing fertilizers and thus the producer only buys one product. Regarding those of high concentration, it is well understood, if possible because there has been significant growth in protected agriculture and around strawberries and high-value vegetables where drip irrigation is used through its fertilizers are applied. For this, highly soluble sources with minimal impurities are usually used, which are not normally traditional sources.

However, with more recent data reported by Instituted Trusts in relation to Agriculture (FIRA 2020), in the agricultural year 2019 71.8% of the sown area was fertilized, representing the seventh consecutive year with increases in the percentage of fertilized area. According to this report, the consumption of fertilizers in Mexico grew 5.8%.

In an interview with a FIRA fertilizer specialist analyst, Gallegos Cedillo (2021) asking about the trend in fertilizer consumption and asked about the demand and supply of fertilizers in Mexico, he warned that the lack of information with hard data does not always support trends in which the market moves. Regarding the consumption of fertilizers, the production information indicates that production has fallen: 15.4% from 2013 (2.06 million tons) to 2020 (1.75 million tons) for the period January-September. This, although in 2014 and 2019 increased compared to the previous year and the same period.

Now, if we consider the fertilized area, it has increased, as a percentage of the sown area. This proportion has increased from 2013 to 2019, the last reported year, going from 65.3% in 2012 to 71.8% in 2019. However, if we look at the apparent consumption, it increased from 5 million tons in 2013 to 6.7 in 2018, in 2019 (January-December) it does drop to 5.8 and in September 2020 it is 5.2 (Graph in quarterly report) (FIRA, 2020). There are no elements to attribute the drop in consumption from 2018 to 2019 to the decrease in producers' income, but if someone affirms this, it is difficult to prove otherwise.

Figure 1.



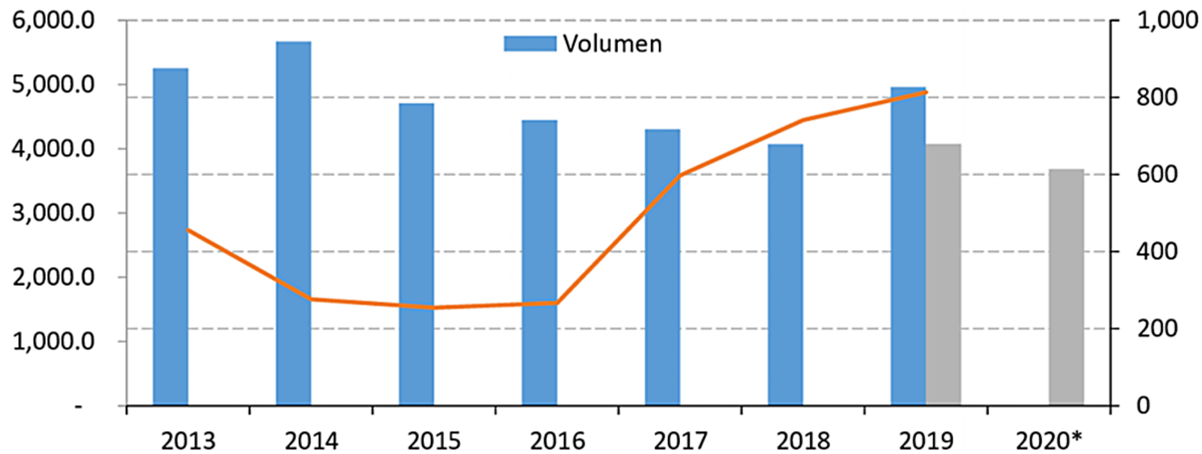
FERTILIZER PRODUCTION IN MEXICO

The increase in Mexican fertilizer production during the last years is attributed, in part, to the reforms made to the Pemex Law since 2008. These had the objective of promoting the production and productivity of the Mexican fertilizer industry through the supply of raw materials, such as ammonia, at competitive prices for national manufacturers. In 2018, national production contributed 30.7% of apparent national consumption, which is estimated at 6.2 million dollars and represents an annual increase of 7.9%. The foregoing shows the country's high dependence on fertilizer imports.

With data from 2019, the national production of fertilizers is mainly composed of: Phosphate fertilizers (diammonium and others) with 55.7%. Nitrogen fertilizers (ammonium sulfate and nitrate and others) with 32.2% Acidic fertilizers (phosphoric, sulfuric, and nitric) with 10.9%. The estimated value of the fertilizer industry in Mexico in 2019 is 13,616.4 million pesos, 2% lower than that registered in 2018 (FIRA, 2020).

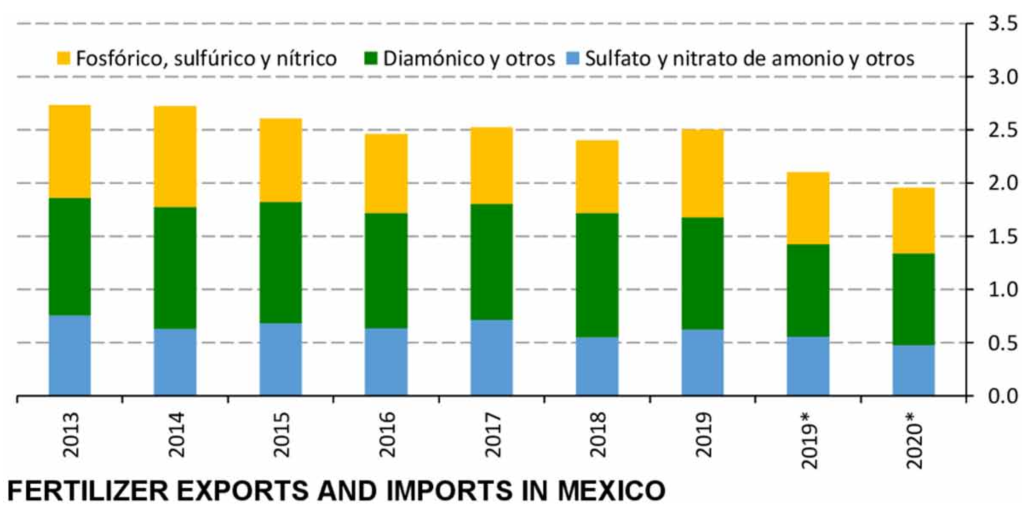
Fertilizer production processes in Mexico are not integrated, a situation that has an impact on domestic producers, especially urea and nitrate, being at a disadvantage compared to producers of international competition (UACH). According to data from the latest Quarterly Report on Fertilizers from the Directorate of Research and Economic Evaluation of the Instituted Trusts in relation to Agriculture (FIRA, 2020), the production of fertilizers in Mexico decreased at an annual rate of 8.4% in the first nine months of the year compared to the same period in 2019.

Figure 2.



Regarding the fact that the national producers of urea and ammonium nitrate are at a disadvantage with international competition, as a consequence of the lack of integration of their production processes, if the statement is well understood, especially the reason that is manifested by the lack of integration of their production processes, in general, it would be expected that greater integration greater profitability, but this is not considered to be the main reason for the disadvantage of domestic producers. It can affect but is not the main reason.

Figure 3.



More weight would be given to the characteristics of the Mexican farmer, small areas and little specialized, he grows various products, as well as the dependence to a large extent on the import of fertilizers that expose him to have fertilizers without due quality control, lack of weight in the containers (49 kg bags instead of 50 for example), exchange rate, etc. Gallegos Cedillo, 2021).

In this regard, with information from the Ministry of Economy, imports of fertilizers in Mexico, during 2018, registered a volume of 5.06 million dollars and represented an annual increase of 12.6 percent. In said year, imports came from Russia (30.9%), the United States (14.3%), Norway (12.1%) and China (11.1%), mainly. In the last five years, these countries participated with 69.5% of the national fertilizer imports. In the case of exports, these stood at 0.79 million pesos and registered an annual growth of 10.5%. Between 2008 and 2018, consumption and imports grew on average at an annual rate of 6.3 percent (FIRA, 2020).

Imports in 2019 are estimated at around 2.9 million tons, of which an advance of 92% was recorded as of November. Of the total imported, 67.2% corresponded to nitrogenous, 15.5% to phosphate, 12.5% to potash and others with 4.8%. The commercial value of these imports was 807.8 million dollars, reflecting a reduction of 14.3% in relation to the record of 943.1 million dollars registered in 2018. The main supplying countries were Russia 30.6%, China 16.9%, United States 11.3%, Algeria 7.9%, Malaysia 3.8%, Chile 2.9%, Canada 2.1%, Egypt 1.4%, and others 23.1% (FIRA, 2020).

Between January and September 2020, Mexican fertilizer imports grew 9.9%, while exports decreased 16.6% at an annual rate, totaling 3.9 and 0.46 million dollars, respectively.

Figure 4.

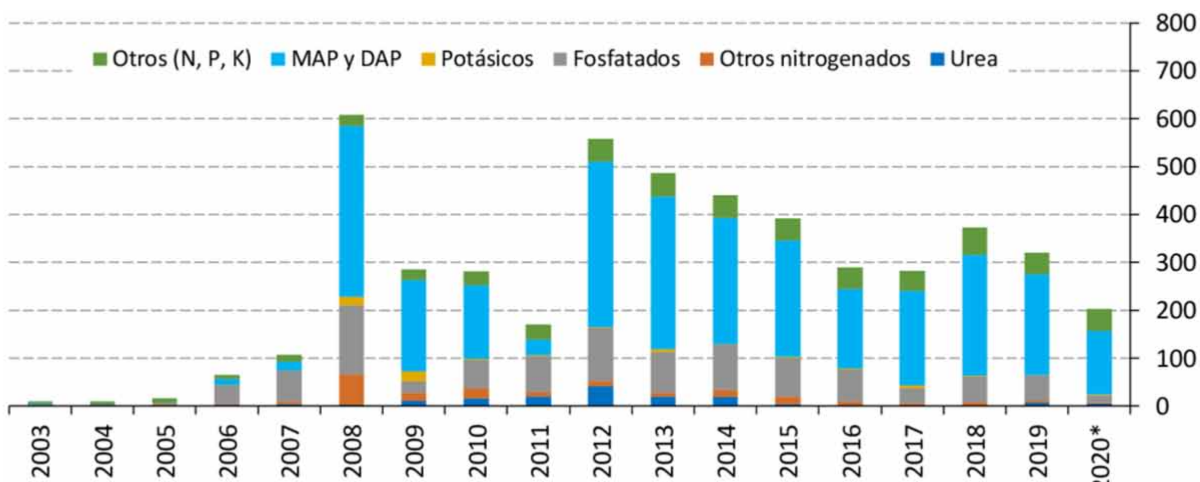


Figure 5.

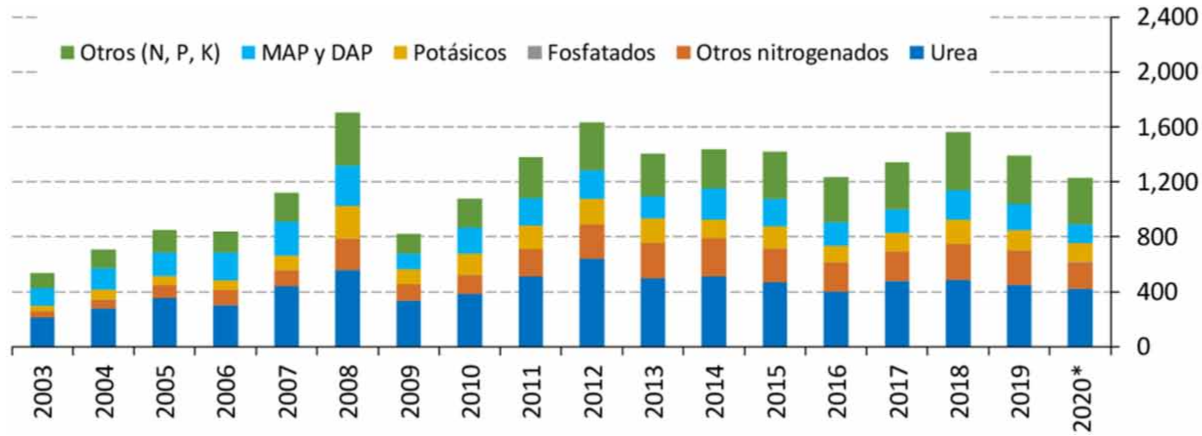


Figure 6.

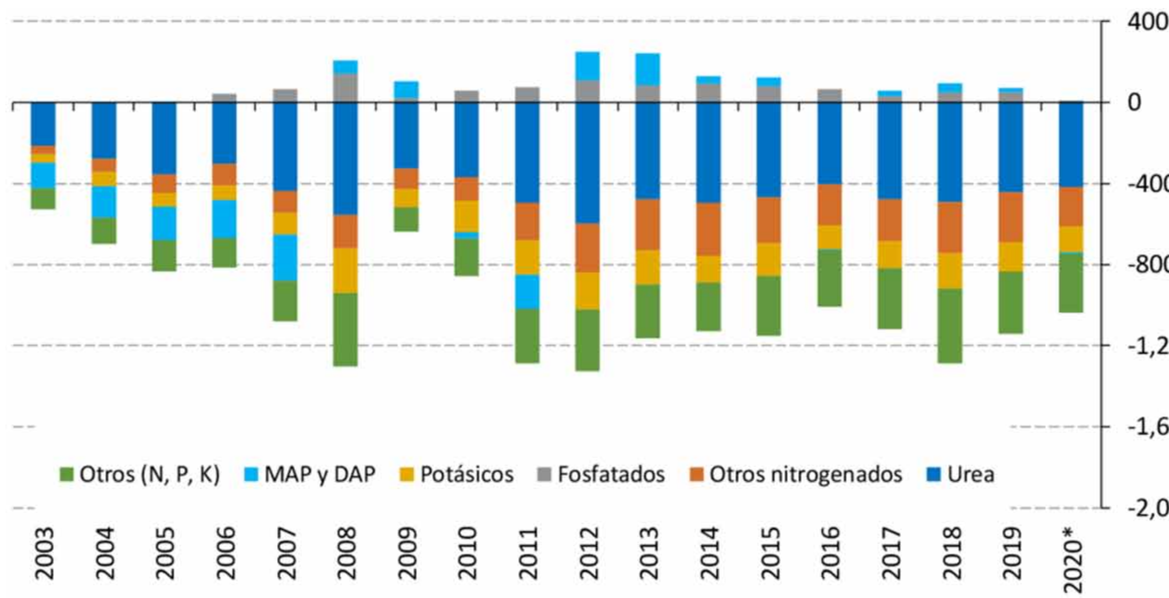
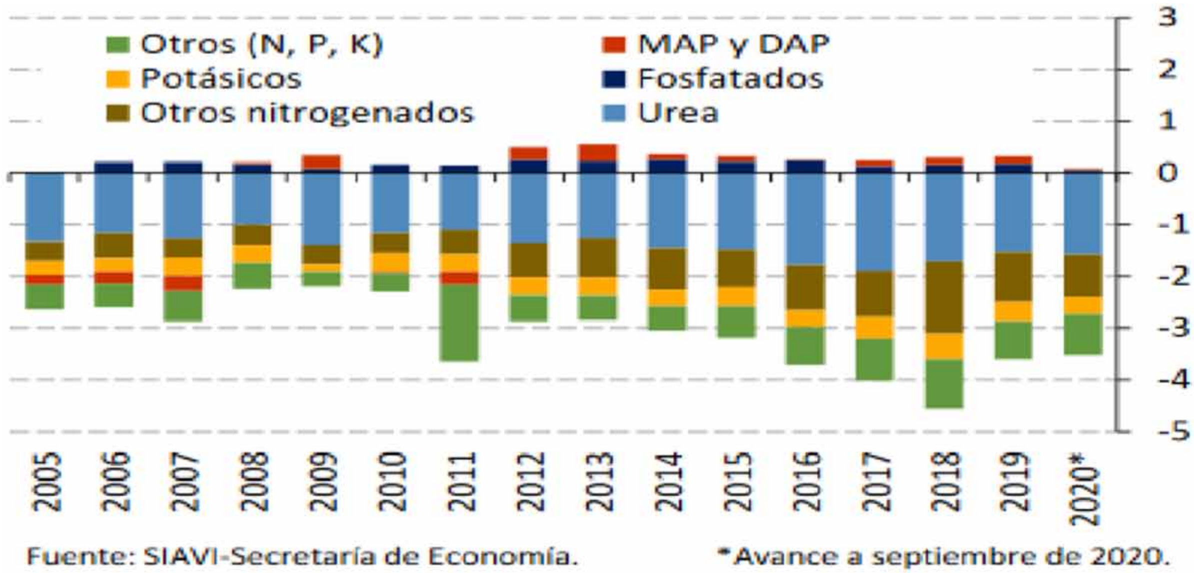


Figure 7.



THE FERTILIZER MARKET

The implicit price of fertilizer imports in Mexico in 2018 was $ 322.3 per ton and represented an annual increase of 6.7%. The implicit price of imports from Russia was 283.4 dollars per ton, 387.2 for those from China and 416.1 for those from the United States, and showed an annual growth of 10.8, 24.2, and 9.7%, respectively. Regarding the average price level of fertilizers in Mexico, since 2014 the behavior has been on the rise. In 2018, a ton of fertilizer, in distribution centers, was quoted on average at 10,254 pesos, which represents an increase of 3.5% compared to 2017.

The fertilizers with the highest annual increases in prices were, diammonium phosphate (DAP) (10.4%), Triple 17 (10%) and potassium nitrate (9.4 percent). In January and February 2019, the average price was reduced by 2.0 and 1.3% compared to December 2018, so it would be expected that the average price in 2019 will be at levels like those registered during 2018 (FIRA, 2020).

In the domestic market, urea prices increased 7.3% from 2018 to 2019; while those of diammonium phosphate rose 4.8%.

The average price of fertilizers in the country maintains an upward trend. In November 2020, it registered growth of 2.7% at an annual rate and 3.3% from December 2019 to date. As of November, the price increases of triple 17 (12.2% annually), ammonia (9.9%), ammonium sulfate (8.3%) and ammonium nitrate (7.9%) stand out (FIRA, 2020). The prices of simple superphosphate and potassium chloride were the ones that showed the greatest annual decrease, at rates of 7.1 and 4.6%, respectively.

Figure 8.

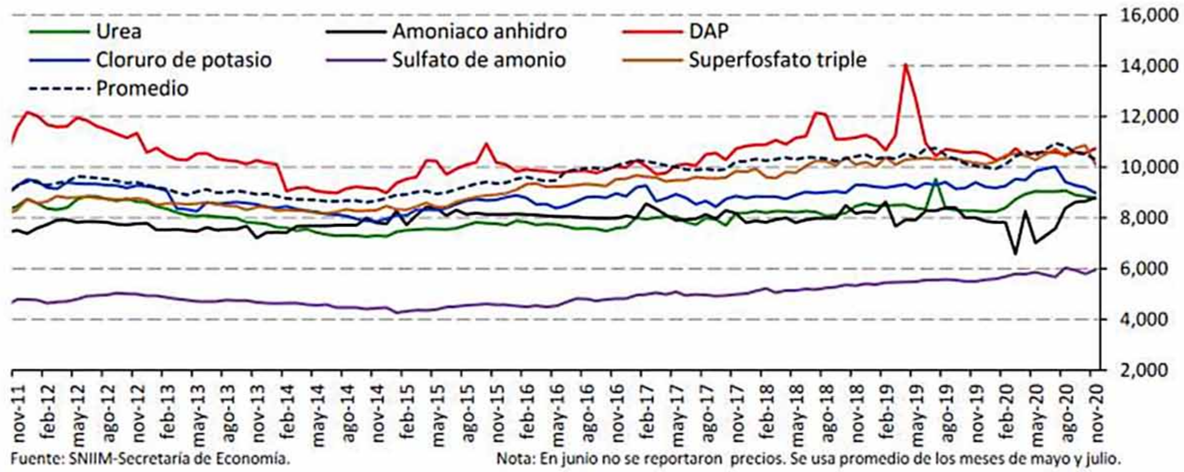
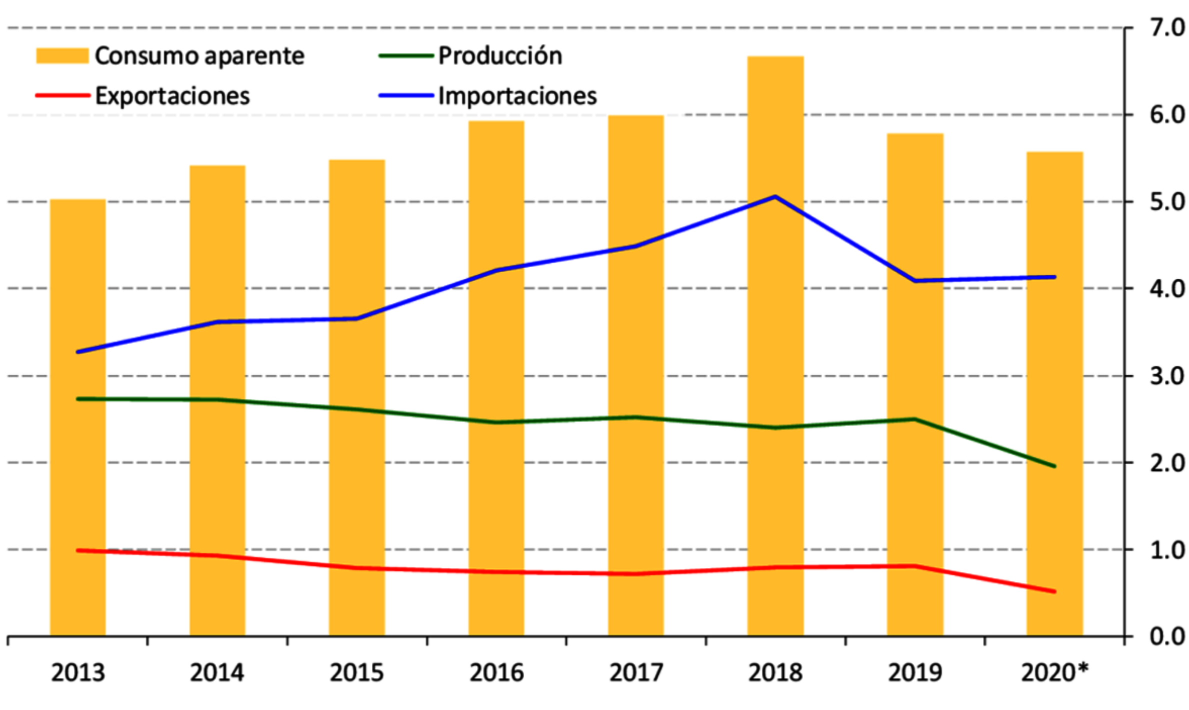


Figure 9.



CHALLENGES AND OPPORTUNITIES: A COMPRENHENSIVE ENTREPRENEURSHIP MODEL OF GREEN BUSINESS INNOVATION (GBI)

Fertilizers are an input of fundamental importance in primary agricultural activity. The rehabilitation of fertilizer producing plants in the country is not economically viable in the short term, because the reactivation of activities in the plants takes time, it is necessary to invest more resources for the qualification and the import of ammonia gas continues, an input necessary in the production of fertilizers. The importation of fertilizers will continue, since the national production of 2020 only covers 33.7% of the total demand, and the remaining 66.3% is brought from the foreign market.

Entrepreneurship, inclusiveness, civil and culture are variables that have complex but straightforward linkages and processes among them and much is still unknown. The last few years have witnessed the generation of extensive theoretical and empirical literature on entrepreneurship and its impact at the levels of regional and firm economic performance (Holmes and Schmitz, 1990; Evans and Leighton, 1989). However, when linking entrepreneurship to the variables of inclusiveness and civil culture, the literatures is inexistent. There is a relative void, despite some recent efforts to study the relationship between entrepreneurship in some other related fields beyond economic growth, which may be attributable to the lack of theoretical frameworks.

However, some studies conducted in economic development have shown reversed causality influencing entrepreneurial activities (Ortega-Anderezand, and Lai, 2017). Entrepreneurial activities tend to be overestimated in regions where there are start-ups playing a relevant role while entrepreneurship activities tend to be underestimated in regions where there is a new entrepreneurial formation and the startups are relatively few (Baptista, Escária, and Madruga, 2017).

The role of entrepreneurship in economic development has received attention from researchers showing the impact of entrepreneurship on employment and social development. Entrepreneurial intentions promote entrepreneurial behaviors (Krueger et al., 2000; Veciana et al., 2005; Souitaris et al., 2007). Entrepreneurship activity can be associated with human necessity providing an opportunity to earn money for living, until better alternative opportunities are found on the labor market (Carree and Thurik, 2010).

The concept of entrepreneurship is multidimensional and related to individual willingness, abilities, and activities on their own, in teams and in organizations to make decisions facing obstacles and uncertainty on the use of institutions and resources to create and develop new opportunities (Wennekers and Thurik, 1999). Entrepreneurial opportunities are the result of unemployment the influences start-up activity, the effect of a thriving economy and experience in entrepreneurial activities (Lin, Manser and Picot, 1998; Pfeiffer and Reize, 2000).

Entrepreneurship is the recognition and exploitation of opportunities leading to the creation and development of a firm (Aragon-Sanchez, Baixauli-Soler, Carrasco-Hernandez, 2017). Moreover, entrepreneurial intentions predict entrepreneurial behaviors, according to the theory of planned behavior (Ajzen, 1991). Entrepreneurial activity creates opportunities to influence economic performance (van Stel, Carree and Thurik, 2005) such as entering the markets with new production processes and products (Acs and Audretsch, 2003). Among the entrepreneurial models there is evidence that the entrepreneurial intentional models (Krueger et al., 2000) supports the theory of planned behavior.

The theory of planned behavior has been used in the analysis of entrepreneurial intentions (Shook et al. 2003). The determinants have significant positive relationships with behavior intention (Armitage and Conner 2001). Do Paço et al. (2011) found a positive and significant influence between entrepreneurial intentions, attitudes, and perceived behavior control. However, subjective norms have an indirect impact on entrepreneurial intentions.

The determinants of entrepreneurial intentions are linked with access to financial, natural, human, and cultural capital and resources through the influence of attitudes, individual subjective norms, perceived social control, and self-efficacy. The attitude is the individual favorable evaluation to start a new opportunity. Individual subjective norms are the perceived social pressure to start a new opportunity and perceived social control and self-efficacy is the perceived ease to start a new opportunity. Based on the Shapero and Sokol 1982) model, attitudes and subjective norms are linked to desirability and perceived behavioral control or self-efficacy with feasibility (Krueger et al., 2000).

METHODOLOGY OF RESEARCH

Background of the Problem and Assumption

Green innovation in urban areas is a neglected issue in terms of urban planning and policing. Still, more neglected is a concern for changes in urban green areas toward the implementation of green innovation initiatives to revitalize the cities, increase the economic growth, improve the social justice and inclusiveness, as well as the improvement of environmentally sustainable development, strengthen the biodiversity and socio-ecosystems. To achieve these goals, it is necessary to implement some actions following the design and implementation of a comprehensive entrepreneurship model.

This new eco-efficient business entrepreneurship model will be analyzed in the context of the integral model, analyzing in this way the tripod of the strategy, which integrates considerations based on industry, resources, and institutions. This paper begins with the assumption that the companies of ecological base present major difficulty at the time of wanting to internationalize, in comparison to the companies of the industrial base.

Instrument and Procedures

This analysis is based on the specific case study of an eco-efficient company using the methodological tools proposed for each one of the theoretical approaches.

For the analysis industry-based considerations are employed in the model of the five forces, also called the diamond model proposed by Porter (1980). The resource and capabilities analysis of the eco-efficient company is employed the model proposed by barney (2001) complemented with the SWOT analysis. Finally, the eco-efficient company is also analyzed in terms of the institutional considerations considered as the “rules of the game”, formal and informal, that frame the entrepreneurial activities and the creation and development of companies according to the territorial environment.

Data Analysis: Use of Fertilizers in Mexico

The National Development Plan 2019-2024 establishes among the priority actions for food self-sufficiency and the rescue of the field the Fertilizer Program for the benefit of agricultural producers.

BIO ORGANIC FERTILIZERS IN MÉXICO

The use of organic fertilizers in Mexico is not very common, this is because industrial-based companies need chemical products that make plants grow at a faster rate due to market demand. But these fertilizers damage the soil causing it to become unusable after a time for the harvest, as a result, the food absorbs these fertilizers that are harmful to the human being in the long run.

On the other hand, organic fertilizers bring many benefits to the soil along with plants and food. According to a study carried out by SAGARPA, organic fertilizers favorably influence the physical characteristics of the soil (physical fertility); These characteristics are structure porosity, air action, water retention capacity, infiltration, hydraulic conductivity, and stability of aggregates. The following table 1 shows a comparison made by the National Agricultural Survey (ENA) in which there is an increase in the use of chemical fertilizers in Mexico and a decrease in organic fertilizers.

Table 1.

Employed technology	Percentage	
	ENA 2012	ENA 2014
Type of seed	60.9%	82.2%
Creole	29.7%	29.2%
Improved	Na	Na
Certified	Na	Na
Transgenic	Na	Na
Seedling	Na	21.0%
Chemical fertilizers	65.5%	68.8%
Natural fertilizers	40.4%	27.5%
Herbicides	61.7%	62.7%
Insecticides	45.3%	48.2%

THEORETICAL-CONCEPTUAL FRAMEWORK

The theoretical framework applied in this study is based on the analysis of the coefficient company using the main three theories of strategic design and implementation: The industry-based considerations, the resource and capabilities considerations, and the institutions-based considerations, as shown below in figures 10 and 11.

Figure 10.

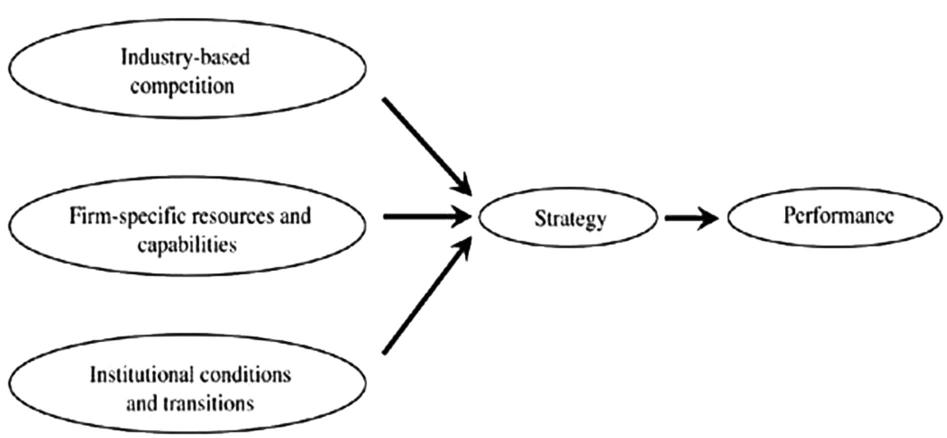
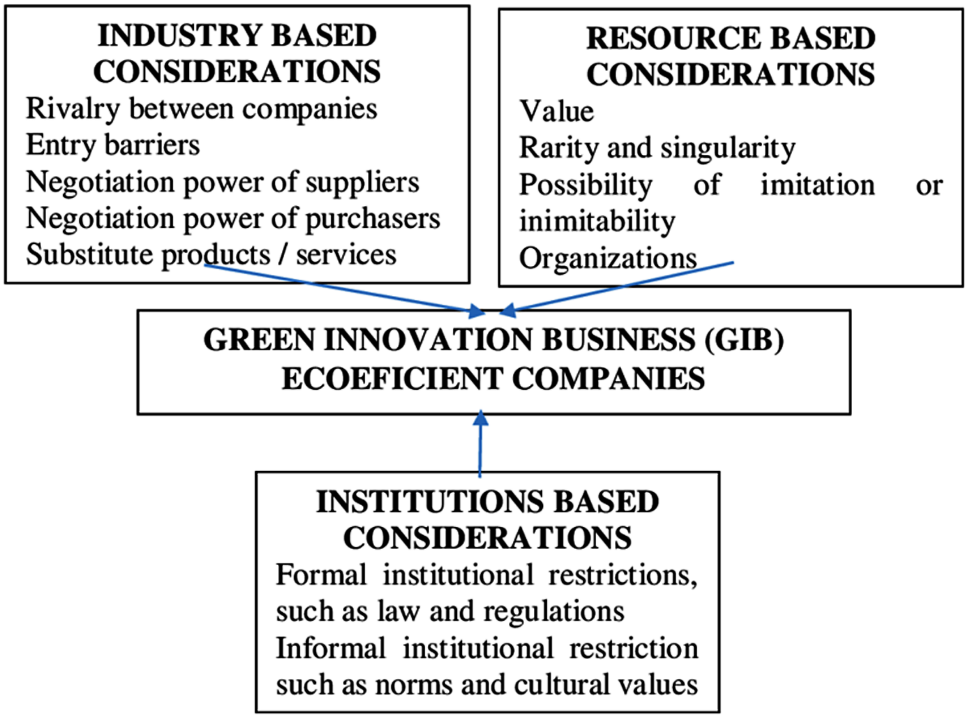


Figure 11.



THE GREEN INNOVATION BUSINESS (GIB): BIO-FOM

BIO-FOM is a green innovation business (GIB) also characterized as an eco-efficient company to promote sustainable, profitable, and inclusive development through highly competitive Mexican seeds with fair prices. Using organic mineral bio-fertilizers healthily increased the profitability of the producers. It is in the metropolitan area of Guadalajara (Figure 12).

Figure 12.

BIO-FOM is the most complete Organic Mineral Bio-fertilizer available on the market, which is made from the interaction of elements: biological, organic, and mineral. It is a mineral organic bio-fertilizer for plant nutrition. The interaction of the BIO-FOM elements forms a Functional Plant Nutrition System; its results reflect: improving seed germination and initiation, healthy and adequate growth, larger roots, greater flowering, and tie, increase in the quality of the fruits, and provide resistance to pests and diseases. BIO-FOM increases soil fertility and contributes to the decontamination and regeneration of the soil.

BIO-FOM bases its functionality on the interaction of the biological, organic, and mineral elements that compose it: A Poly-Functional Consortium of Microorganisms, among them: antagonists to pests and diseases, nitrogen fixers, and; mycorrhizal fungi; that help release the nutrients provided by the BIO-FOM blend itself. The 17 Basic Mineral Elements of plant nutrition (nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, boron, copper, manganese, silicon, zinc, iodine, sodium, cobalt, molybdenum, selenium) Organic Matter, Amino Acids, Acids Humic, and Fulvi.

BIO-FOM contains live microorganisms: 8 bacteria and mycorrhizal fungi that help unblock the chemical components that exist in the soil allowing their absorption, in addition to an important contribution of organic matter, amino acids, humic and fulvic acids, this, together with its content of 16 mineral elements (nitrogen, phosphorus, potassium, magnesium, calcium, iron, boron, copper, manganese, silica, zinc, iodine, sulfur, sodium, cobalt and chlorine) together give rise to a molecular dialogue that results in a functional plant nutrition system, fertile soil, larger root size and helps improve pH, which is essential for proper and healthy plant growth.

Among other benefits, it potentiates the chemical fertilizers that complement the application of BIO FOM as:

1. It recovers the soil fertility, unlocking mineral nutrients present but not available, favoring their absorption due to their bio-organic profile.
2. Increases the specific weight of grains, resulting in higher production.
3. Increases the Br ix degrees of the fruit, having better sales possibilities.
4. Stimulates the immune system, so healthy, vigorous, and productive plants are achieved. Strengthens the root system of the plant, thereby improving the use of water and mineral nutrients available in the soil.
5. Respect the ecosystem, avoiding the contamination of the water table.
6. 100% assimilable, achieving a greater expression of the genetic potential of plants.
7. Retains and conserves moisture in soils.

EMPIRICAL RESULTS AND CONCLUSIONS

Industry-Based Considerations

When analyzing industry-based considerations, the framework of Porter's five forces is used, which considers factors such as rivalry between firms, barriers to entry, the power to negotiate with suppliers and buyers, as well as substitute products.

The Rivalry Between Companies

When talking about the rivalry of companies, it refers to the struggle that companies face every day to obtain a position before consumers. These battles can be for prices, quality in products, advertising battles, etc. On the other hand, the author Huyghebaert mentions that the rivalry between firms generates a direct impact on the likelihood that a business will be successfully undertaken, as well as having an impact on the existence of barriers to entry since fewer firms exist in one industry more complicated will be the entry of new firms (Huyghebaert, Van de Gucht, 2004)

The company to analyze is dedicated to organic fertilizers made from organic minerals. As it is an innovative product, it does not have much competition, nonetheless, there is competition with the substitute products that would be all chemical fertilizers, due to a great variety of substitute products that are available in the market. It is difficult to compete for price in the same way as being a medium-sized company is not even positioned in the consumer's mind when thinking of organic fertilizer.

Nowadays fertilizers and other chemical products for the treatment of the soil represent 15.7% of the income of the Nurseries and gardens industry in 2019. The industry has experienced a rapid growth in recent years, thanks to the constant increase in disposable income per capita and the consumer segment strengthened.

A decent part of the US market has been occupied by large companies such as Scotts Miracle-Gro Company, Walmart, and Lowe's. Because economies of scale, as well as large corporations can maintain a low cost while offering affordable prices. Price competition among large companies has led to slow growth throughout the sector and low profit margins. Some less profitable companies have been forced to leave the industry. Successful companies are those able to compensate the highest prices by offering a deeper knowledge of the product and superior customer service.

Over the next five years, the nursery and garden store industry are expected to continue to grow, as economic conditions are expected to remain stable. As the disposable income per capita increases, the consumer will be able to invest more time and money in the appearance and operation of their gardens. It is also expected that the industry will benefit from a growing demographic interest in small plants, gardening, and organic horticulture.

Below is a list of companies with which Mary's Poop competes in the United States.

Scotts Miracle-Gro Company (OH, USA)

Founded in 1868, Scotts Miracle-Gro Company is a multinational corporation and industry leader in the lawn and garden market. Its products include the infamous Miracle-Gro and a complete line of plant foods. The most popular Miracle-Gro fertilizers are inorganic, which are much less expensive than organic fertilizers.

PacaProGro (CA, USA)

The PacaProGro farm is in Somis, California, with an estimated 180 alpacas producing alpaca fiber and alpaca manure. Not only sell alpaca fertilizers, but also merchandise made of alpaca fiber, such as hats, gloves, scarves, and stuffed animals.

Alpaca Grow (VT, USA)

Alpaca Grow is a small family business operated in Vermont that began in 2014. Like Mary's Poop, Alpaca Grow sells only alpaca fertilizers.

Isolated Wood Farm (British Columbia, Canada)

Secluded Wood Farm is headquartered in British Columbia, Canada. They sell alpaca fiber and manure products.

Alpaca Island Company of Martha's Vineyard (MA, USA)

Island Alpaca Company has more than 15 acres and around 50 alpacas. They sell alpaca fiber and manure products, and they are charging higher prices.

Camelot Haven Alpacas (British Columbia, Canada)

Founded in 2002, Camelot Haven Alpacas produces and sells alpaca clothing, accessories, gifts, and alpaca fertilizers.

Entry Barriers

As already mentioned before, BIO-FOM faces competition from large chemical and organic fertilizer companies. Due to this, there are difficulties when it comes to wanting to enter the foreign markets, as the big brands are doing well positioned in the market, and it would be complicated to unseat them or compete for prices so that the company, in this case, could compete for product quality as well as innovation and for the benefits that its product provides.

It is also important to consider the transaction cost and the transportation cost if working with foreign currencies. If the costs become too high, BIO-FOM products would be less competitive in the foreign market. An alternative to export is the franchise, which allows local business units to produce BIO-FOM products for a fee.

One of the competing companies of Mary's poop is already positioned in 10 states of North America, and has large sales volumes, being this way, the products of Mary's poop and other small alpaca farms cannot compete by prices and volume, as already mentioned previously, which makes it be handled as an oligopoly market among large companies. These in turn set entry barriers when playing with prices since, if they see that a new product wants to enter the market, they lower their prices to continue to have an advantage over others or use promotions which makes them more attractive. the purchase of their products to the final consumer.

It is also important to consider the transaction cost and the transportation cost if working with foreign currencies. If the costs become too high, Mary's Poop products would be less competitive in the foreign market. An alternative to export is the franchise, which allows local alpaca farms to produce Mary's Poop products for a fee.

Substitute Products or Services

In the global marketplace and more specifically, North America, large, medium-sized, and small competitors produce similar products. Geographically, most of the production plants are in rural areas and seem to serve only local markets. The competitive advantage of BIO-FOM is that it is the company with the highest social awareness among all its competitors. And although its product is easy to imitate, it gives it a plus by mixing it with some other ingredients that make the compost a better quality. It is also easy to use as they pack the product inside disposable pod-made biodegradable materials that only must be deposited in a container with water waiting for it to dissolve and starts to water in a normal way.

But there is a high range of substitute products that, although they are not organic, the final use is the same (serve as fertilizer to the plants), sharing with substitute products is complicated since the raw material they are made with are very economical and this it makes the prices of the products accessible to all types of publics. On the other hand, the organic products that Mary's poop handles are of a slightly higher price, this is due to the handmade process with which they are manufactured.

Bargaining Power With Buyers

According to Porter, at this point, it is defined as the ability of customers to impose prices and conditions of sale (Porter, 1980). This force can be established by customers directly, whether negotiating a discount or financing model, demanding delivery forms, or indirectly which is summarized with competitive purchases.

The bargaining power of buyers may depend on some variables such as a high supply of products and/or services and low demand for them. Another may be that the products offered have no differentiation among themselves, etc. At this point, the customer has the option to choose any product or service that is presented to them and that they consider to be the best and meet their expectations. As well as defining what is the maximum price customers are willing to pay for a product or service, as well as some other requirements that could be delivery times, product quality, etc. All this has an impact on the company's profits.

Mary Forte, the owner of Mary's Poop, manages and operates the company and interacts with customers and other interested parties through social networks. Nowadays, online / digital marketing is the most important marketing tool, especially in social networks. For example, use "Pinterest" to communicate with the company's audience. This social networking platform is popular with many users who share images that can be easily shared. Therefore, she can approach her audience and attract their attention and thus know what customers need and adapt to the needs of the market.

Bargaining Power With Buyers

In one of his writing papers, Peng mentions that when the bargaining power of suppliers becomes too great, business solutions must be found that can reduce it (Peng, 2012, page 127); this is since many options must be available to purchase inputs at reasonable prices.

The organic fertilizer based on organic minerals requires many inputs because of a lot of raw materials are used for its elaboration, so it is necessary to have many suppliers. But if it is necessary that with few suppliers that have contact make and establish the negotiation agreements and delivery times among many other things, in this way can reduce and to a certain extent eliminate transaction costs.

Considerations Based on Resources and Capabilities

The resources are any input in a productive system in which an output is generated. These can be classified as financial, physical, human, technological, organizational, knowledge, management team experience, and customer service, among others. The consideration based on resources groups some indispensable factors for entrepreneurship, some of them are creating value, being unique through the rarity factor among other aspects. For example, in an analysis Peng mentions that it is important to consider the resources of the company, they must be oriented to create value, they must have rarity, they must be difficult to imitate and finally business resources must be immersed in the organization (Peng, 2012).

On the other hand, Barney dogmatizes that the heterogeneity of organizations is due to the possession of resources: i) valuable, which must respond to environmental threats and take advantage of their opportunities; ii) rare or scarce, those that cannot allow obtaining competitive advantages with competitors; iii) difficult resources to imitate, without substitutes and organizational, which means that the company has aspects of order (Barney, 2001, page 41).

The company BIO-FOM offers the market an innovative product because it is taking the greatest benefit to a product that people see as a waste and transformed it into a product with added value; the strengths which this product provides are that they are organic, have a higher performance compared to other fertilizers, are favorable to the environment, are not expensive to produce. Something that gives a higher value is that the packaging is biodegradable by which makes the whole product itself is ecological and there is no waste of plastic or any other material that is difficult to decompose, the product is safe for children and pets so anyone can use it.

Therefore, for the considerations based on resources, a SWOT analysis was carried out to analyze both: the internal and external factors that provide added value to the firm, as the positive and negative factors that can cause the company not to grow as rapidly as expected.

Table 2.

Strengths	**Opportunities**
Organic products / products without chemicals Excellent performance compared to other inorganic fertilizers environment friendly It is not expensive to produce The packaging is biodegradable No toxic, safe for children and pets It is not easy to imitate	Growing trend in organic products Market development Product development Product differentiation
Weaknesses	**Threats**
Lack of advertising + visibility Small production capacity-challenge for the company at scale The products have limited functions The products are not standardized Hard to forecast production Limited capital and strategic partners Do not go alone Expensive compared to inorganic fertilizers	Regulations that exist for exports Animal diseases Environmental factors may affect production Breach of demand levels Low market level

In this table, it is shown that the firm has many strengths that make its product different but also has many threats. This is due to the same rarity of the product that makes it somewhat complicated for sale, likewise, the product is easy to imitate, so at any time it could have a lot of competition, which can quickly get to the market firm. In his essay, Porter states that the competitive advantage comes from the value that a company manages to create for its customers, by offering special benefits that compensate a higher price of the product (Porter, 1980).

Considerations Based on Institutions

When talking about considerations based on institutions, we are talking about the rules of the game of these, in which the behavior of the company is determined and how they are developed around the world. Peng points out 5 strategies for an entrepreneurial company to be successful, which can be applied together, and they are growth, innovation, networks, financing/government, and harvest/output (Peng, 2012).

The BIO-FOM company integrates some of these strategies such as innovation in their products, as well as networks since they try to have a wide network to get known as well as to obtain advice and keep growing as the company participates in a program called X-culture where companies are assigned a group of people from different parts of the world, advising companies so they can expand or internationalize at the time the company uses all the networks that are possible for be able to expand. Peng mentions that there is evidence that networks, personal and organizational, represent significant resources and opportunities and that the successful creation of networks can lead to the efficient performance of firms (Peng, 2012, page 13).

Instead, McDougall notes that network analysis builds a very solid foundation and helps identify international opportunities, as well as establish credibility, provide access to critical resources, as well as knowledge, and lead strategic and cooperative partnerships (McDougall and Oviatt, 2000).

CHALLENGES AND OPPORTUNITIES

Green innovation business (GIB) is in the field of organic fertilizers are contributing with an input of fundamental importance in primary agricultural activity. The rehabilitation of organic fertilizer-producing plants in the country is not economically viable in the short term, because the reactivation of activities in the plants takes time. Besides, it is not common to find these kinds of producer units in urban areas.

It is necessary to invest more resources in the qualification and to reduce the import of organic inputs and other ingredients necessary in the production of fertilizers. The importation of chemicals as well as organic fertilizers will continue, since the national production of 2020 only covers 33.7% of the total demand, and the remaining 66.3% is brought from the foreign market.

CONCLUSION

When analyzing the green innovation business (GIB) and eco-efficient company through the comprehensive method of entrepreneurship, it is observed that just as the company has some advantages in the product also with many threats that are the large companies that are already positioned and that also compete with competitive prices. It is also determined that although the green innovation business (GIB) has a wide network that is using the best way possible, it is necessary to increase the international network of contacts so that the business can grow quickly.

Although BIO-FOM has been positioned in the local, regional, and national markets for a short time and has grown steadily, it has the challenge to enter the international markets in a very competitive position. The company Mary's poop has a competitive advantage that differentiates it from other firms, and that is that its product is innovative and ecological, as well as its processes are carried out in an ecological way which makes it an eco-efficient company.

Likewise, due to the culture of planting in Mexico, this company faces problems to become highly competitive in the country, since most farmers prefer chemical fertilizers and thus produce more in less time than caring for the land and having a product of a higher quality with organic fertilizers.

It is necessary to implement a culture of conscience in Mexico when we talk about caring for the land since the use of organic fertilizers would not only help the environment but also people, this is because the foods that are consumed will have better nutrients and they would not be contaminated with pesticides. Today some people started to make their gardens at home, so they grow their food, this is a good technique because they can be sure that the consumption of food is one hundred percent organic. Here is the importance of the topic for green innovation in urban areas.

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Chapter 3
Constant Communication for Community Engagement Through Responsible Leadership to Manage the Pandemic

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ABSTRACT

The aim of this research was to study how community engagement using constant communication can be utilized to manage pandemic though responsible leadership. This study focuses on India's experience of community engagement and responsible leadership demonstrated by national leaders, especially Prime Minister (PM) Mr. Narendra Modi using his constant communication as one of the strategies. Data of Indian citizens through various online communities has been analyzed through qualitative analysis called netnography, which is an extension of ethnography. Based on this methodology, thematic analysis has been carried out. Constant communication as one of the themes helps responsible leaders in managing pandemic-level crises. This research also develops conceptual model as a research outcome to be more specific in terms of communication among communities through a leader. Nations struggling to manage pandemic can get more social and economic relief if such crises could have been managed through responsible leadership through his constant communication.

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INTRODUCTION

Novel coronavirus disease (COVID-19), severe lung syndrome prompted by the virus SARS-CoV-2, started in Wuhan, China, and now it is mainly spread in the entire world (Maxwell et al., 2020). World Health Organization (WHO), on March 11, 2020, declared this as Pandemic (Source WHO). This virus is exploiting humanity. Human beings are social creatures, but this virus dangers turning instincts into a deadly weakness. It is also observed that more than 218 countries have been affected by this virus. (Source: Worldometer). Any disasters, epidemics, and pandemics are enormous and come with significant levels of disturbance across all levels for any nation (Monica et al., 2007). Such events require many efforts from the side of the people and not only from the people serving at official posts (Schoch-Spana et al., 2007). Minimal studies have been done in connecting responsible Leadership and community engagement to manage the crisis at the national level using communication as the critical factor.

Community participation can be perceived as a social process (Newport & Jawahar, 2003), where vulnerable groups collaborate for everyday needs and requirements. Their studies have also mentioned that to make it successful, such a community also needs related institutions like NGOs, private organizations, and sometimes the Government. This can be termed a supportive construct for community engagement (Yodmani, 2001, Paton & Johnston, 2001). Government involving citizens for disaster curbing is not a new term. Volunteering of citizens as emergency personnel retorts due to lack of personnel has been recognized since World War II (Chen et al., 2006). At a broader level, the main objective of community-based disaster management is to prepare high-risk communities in disaster to the most disaster resilient community through transformation (Victoria, 2003).

The leader plays an essential role in managing pandemics (Kaul et al., 2020). The leadership concept has been addressed widely in different phenomenon across the literature (Alvesson, 2016). Many leadership studies, including servant Leadership to e-leadership, have been studied (Avolio et al., 2009). Leadership is a dynamic process where people included in this process are mutually dependent on one another for attaining a common goal (McCusker et al., 2018). There have been different experiences each country has gone through ever since this Pandemic was announced. People would focus more on their leaders while hoping for pandemic management in such a difficult time. The role of a leader in difficult times gets more tested (Wilson, 2020). At the same time, some have been working great in managing it while others are still struggling to manage it (Dirani et al., 2020). Be it an organization or a country, the Pandemic has made complex challenges for the leaders to act and put plans into action. Many countries are struggling to get sustainable options to survive economically and socially viable. Emphasis on responsible Leadership has been grown recently, seeing the actions taken by most of the leaders across different organizations and countries (Pless & Maak, 2011). Past research shows that responsible Leadership has an inclusive approach towards the community at large perceived well. A leader who takes responsibility for his actions and reflects the same (Waldman & Galvin, 2008) makes more sense in the responsible leadership concept.

So far, India has managed this Pandemic well (Trivedi, 2020), considering its challenges in terms of population to diverse demographical issues. India, the second most highly populated country globally, having its challenges being a developing country, had managed well through its solid and decisive Leadership and strong community engagement (Mehta et al., 2020).

Through this research, the authors aim to present how the community can be engaged through responsible Leadership via communication as one of the key strategies to manage the Pandemic. The authors have given a literature review in the first part of this chapter, and subsequently, this research shows empirical evidence of the study through quality research analysis. The authors have used netnography, which is an extension of ethnography. Seeing the present scenario of social distancing, the authors could gather maximum data from social media and various e- platforms for conducting this research.

Later, the authors have discussed how community engagement, communication, and responsible Leadership plays a significant role in managing a crisis like a pandemic.

BACKGROUND

Davis et al. (2018) found that the practice of mobile clinics involves the community and develops health and quality of care wherever low-income areas prevail. O'Mara-Eves et al. (2013) highlighted the accomplishment of socio-political goals by requesting communities to take control of their destiny; many intercessions bring a realistic or health systems perspective. They also mentioned that for practical reasons, community involvement would be more effective rather than the other way. In their studies, Ahmed et al. (2017) stated that community engagement has five significant parts: community outreach and services, education, clinical care, research, and policy and advocacy. Their study mentioned that that should be supported by respective administrative and infrastructure setup.

When COVID-19 splintered worldwide, a thoughtful action was essential, from primary containment to home-based vindication and public health responses. Home-based isolation was proposed by Prime Minister Modi during his public address that people are advised to stay home, and he proposed a self-imposed curfew named it '*Janta Curfew*.' India has understood that tasks of Indian healthcare systems have not been limited to screening and treating returned or newly landed travelers. Still, it will be an enormous burden of detecting, isolating, managing the increasing number of cases, dictating total engagement of the medical staff, public health sector, governments, and society as a whole. The community engagement model seems to be more effective during this outbreak through successful and responsible Leadership. In this study, authors have tried to understand how community engagement and Leadership can guide critical stakeholders to develop an attitude of restraint and resolve during a pandemic called COVID-19.

While conducting the research epistemology part has been observed very closely. The authors understand that there are significantly fewer studies that have been done in this area where community engagement and responsible Leadership have been combined with pandemic ontology. The term community can be explained as organized actions through which participants direct their shared interests in society (Wilkinson, 1991). In modern society, the community is considered the essential foundation (Putnam, 2000). In todays' era, appealing images and impressive claims regarding Leadership are central (Alvesson & Einola, 2019). Inconsistent leaders who fail to keep their process cannot get success. Community Engagement can improve pandemic emergency planning (Monica et al., 2007). In their research, authors mentioned Community engagement which can be identified as cumulative action or actions like structured discussion, problem-solving by mutual efforts, collaborative activities among various formal authorities. Such collaborative efforts would augment the efforts initiated by the Government and help to fight the battle.

Such battle mitigation would help any nation to come together and manage crises with minimum losses. According to Weerts (2014), community engagement is a cooperative exchange of a jointly beneficial transfer of knowledge and resources. Community engagement is the state where citizens are united and build the blocks where community activities are aimed at community engagement. At the same time, in this chapter, the authors argue that a responsible leader proves that in sustainable relationship structures that are pretty rich in stalemates to otherwise unconnected individuals or groups (Maak T, 2007). Responsible Leadership talks about maintaining good and sustainable Leadership with all stakeholders (Maak & Pless, 2006). An accountable leader's main job is to structure a web of insertion where the leader engages himself with others. Communication plays an essential role in any pandemic crisis; it is not only direct communication, but it talks about all the strategies related to that (Hyland-Wood et al., 2021). Hence Community Engagement through responsible Leadership is base for this research. It has been argued that a responsible leader, especially in national politics if involved in the community through community engagement, can successfully manage critical situations like a pandemic. However, researchers do not claim this to be the most and only effective way. Countries like India, a developing country, suffer excessively from infectious diseases given the convergence of demographic, socioeconomic, and environmental aspects (Dikid et al., 2013).

A national leader who leads the country is expected to take charge of crises and guide the nation in such difficult times. Prime Minister Mr. Narendra Modi has the profound realization of community involvement through demonstrating responsible leadership engagement tools. Crisis preparation and response (Mehta et al., 2020) cannot be dynamic without the participation of the communities (Linnell, 2014). *Janta curfew* was the first experiment that India's Prime Minister shouted for when he first addressed the nation through live streaming. He urged people to follow a self-imposed curfew (*Janta Curfew*), the first of its kind. The entire country, through this engagement tool through his exceptional communication skills. Communication, along with other factors, are significant in building collective capacity in modern society (Sava et al., 2020)

Most Twitter and social media accounts started following this trend of *Janta Curfew*# and suddenly feeling patriotism was weaved to observe self-imposed curfew. Social distancing (Bedford et al., 2020), though not much discussed regarding the Pandemic in the literature available. There have been though previous studies (Reluga, 2010) did mention social distancing. This responsible Leadership through this community engagement was observed rarely across any nation, perhaps. This experiment of *Janta Curfew* had helped the Indian Government to implement lockdown to curb COVID -19 impact. During this Prime Minister, Mr. Modi constantly considered all stakeholders' opinions, including print media, broadcasting media, doctors, medical staff, etc., to design the next strategies level. The above argument clarifies how true leaders' worth inputs of the general public because it enlightens their decisions, joins them to everyday people, and 'tests' advice from other sources (Hendriks & Marshment, 2019). During a pandemic, the public should get accurate information at the right time because they already have plenty of misinformation (Reddy & Gupta, 2020). A leader is expected to use a collective set of competencies in a crisis rather than one or two (Weick,1988). Therefore, a leader should have crisis management skills that include communication as one of the crucial competencies and sustaining organizational culture, decision-making skills, etc. (Bolman & Deal, 1997).

Based on the above literature, the authors found that there have been studies conducted at the broader level on responsible Leadership, community engagement but linking both through communication as one of the main strategies to connect community for managing pandemics is a potential area of research. This study can give insights into Leadership and engagement. With this research gap, the authors present the objective of the study.

MAIN FOCUS OF THE CHAPTER

The present chapter focused mainly on how constant communication for a responsible leader helps in community engagement to manage Pandemic. Hence following objectives have been worked on by the authors,

1. To understand the importance of responsible Leadership for community engagement.
2. To analyze the importance of communication for responsible Leadership to resolve the pandemic crisis at the national level using the community engagement model.

For attending above objectives, the authors have used Netnography as a tool for data analysis.

Netnography is a method of online research that was familiarized (Kozinets, 1997) to undertake marketing research. The author explained that 'Netnography' is a specialized form of ethnography (Morais et al., 2020) with unique possibilities for various computer-mediated social communications (Villegas, 2018). Anything that happens in the natural or physical words becomes a folder for social media (Kozinets et al., 2014). Netnography as a research methodology tool can be applied in various topics and fields (Heinonen, & Medberg, 2018). Social media space is very contemporary to collect and gather data, especially when social distancing is stressed. This method has been planned to study online communities as well as culture (Toledano, 2017). The principle of estrangement (Fetterman, 2009) has been followed while doing this research. In this research, the authors aim to reach out to the community through a convenient sampling method. The community to be defined here in this research has a broader scope. India has a considerable population of 1.339 billion people (source United States Census Bureau), COVID-19 virus and its spread would endanger the lives of the people. Indian population and demographics features (Aspalter, 2002) are different from other advanced countries. Hence, they need to have softer and less challenging leadership power (Peyton, 2019). The authors of this research have gone through popular studies to make this research more meaningful. While doing a literature study for research methodology, the authors reviewed that some netnography researchers like (Lima et al., 2014) followed all steps (Mehta et al., 2020) of (Kozinets, 2002) netnographic method from the planning of research-to-research presentations.

In contrast, the rest others have either adopted or omitted some step that fits into their research (De Valck et al. 2009). While (Bratucu et al., 2014) mentioned that they had skipped the planning stage. While in some studies (Füller et al., 2007), the authors observed that four steps. Many have espoused the netnographic procedures, while in the study of netnography, the authors found detailed discussion related to methodology in nursing (Salzmann-Erikson & ERikSSoN, 2012), which included reviewing literature documentation of research questions as one of its steps. But the authors have followed all steps for this research, namely planning of research, entrée, data collection, data analysis, considering ethical standard, and research presentation (Kozinets, 2002). For this research, unlike the purposive sampling proposed (Kozinets, 2010), the authors intended to use a generalized approach (Costello et al., 2017). Community engagement is not targeting a stratum of community. Since this Pandemic will not target only one segment of the society, the authors approached the community in a general way using convenient sampling.

Some netnographic researchers concentrated their studies on a single online community (De Valck et al., 2009), (Xun & Raynolds, 2010), (Kelleher et al., 2011). The authors assure for this research participant anonymity (Janta et al., 2012) by deleting the members '/posters' names and sharing results placing participants X, Y…to ensure ethical consideration of research. For the present study, the authors added a sophisticated tool for netnography. They firmly concentrated on humanist netnography, where the authors focus on research questions that have a profound social impact (Kozinet, 2015). The authors immersed themselves in social discussion forums and analyzed more than 7000 comments over eight months over more than three platforms, namely yahoo groups, Facebook, and google groups. The authors did follow the norms of netnography, where they immersed themselves in the discussions about the subject matter. Before that, they did identify how and where the comments were to be selected. The authors understand that while collecting data through netnography, they were aware of these limitations of using this method as it has some sampling biases. Still, at the same time, it could cover more depth and broader respondents as compared to traditional ethnography. Moving ahead with this fundamental argument, researchers have collected responses to more than seven thousand posts. The authors found 4000 comments enough to be carried forward through raw peeling and data debris cleaning. The authors did work simultaneously in skimming data. The authors did the entire job manually and produced codes based on the threads and comments. Thematic analysis was carried out; thematic analysis is a qualitative research method used for epistemologies and research questions (Nowell et al., 2017). The authors understand that painstaking thematic analysis (Mehta et al., 2020) results in insightful findings (Braun & Clarke, 2006).

This study, as mentioned earlier, adopted a netnography approach to study community engagement through Leadership to manage the pandemic crisis, mainly focusing on communication as the significant area since it had emerged as the primary focus area post deductive coding.

Comments related to primary keywords repeated and every day was collected, which can be considered 'extant' material (Mehta et al., 2020) created autonomously without any intrusions on social media platforms such as Facebook and Yahoo, etc. under various threads of discussion forums. Data collection involved the work of gathering comments posted on these platforms was modest since the authors have not direct contact with the posters of these comments. All statements made during this study were collected anonymously or pseudonymously by downloading comments in a word document, and analysis, therefore, did not capture the names of the poster/ commenter. Authors have gone through all the comments initially, post then, and the words which were not relevant were discarded. So, comments which were not directly attributed to this research, whether positively or critically, were removed. This process left around 4000 comments which qualified for containing around 248680 words. These words formed a dataset for this research. Based on which authors developed thematic analysis. While reading the dataset, the authors gave attention to comments as well as the content. Data analysis was an iterative process with the collected and selected data set, which authors read repeatedly. While reading data, similar data have been grouped. After data were gathered, they were analyzed, and findings were compiled.

SOLUTIONS AND RECOMMENDATIONS

Based on analyzing selected comments and discussions from various online platforms and shortlisted posts, authors have developed the following model based on the deductive coding assigned to the collected dataset, which emerged as a broader theme. Communication has mainly emerged as the theme which a responsible leader should focus on while managing a crisis.

Findings reveal that the community felt engaged during the Pandemic under the Leadership of Prime Minister Mr. Modi. His contestant communication has played the lead role in managing this Pandemic successfully. Comments posted on various social media platforms reveal that people were highly motivated by the messages of the Prime Minister.

Comments reveal that the Prime Minister's appeal to follow the self-imposed curfew on March 22 reflected that people were influenced by such a message of responsible leader and followed self-imposed curfew successfully. The statement from his side was heavily followed on social media, and people started following this trend of *Janta* Curfew and suddenly felt patriotism was weaved to observe self-imposed curfew (Barkur et al., 2020). Comments like the *Only leader in the world, who leads with positive advice, actions, and ideas; motivated people in pro-health help suggestion*. *We are proud of you, dear PM.*

Best wishes in all your well decisions, well time decisions & supporting action. We are all with you; it reflects the community's involvement and respect for the leader.

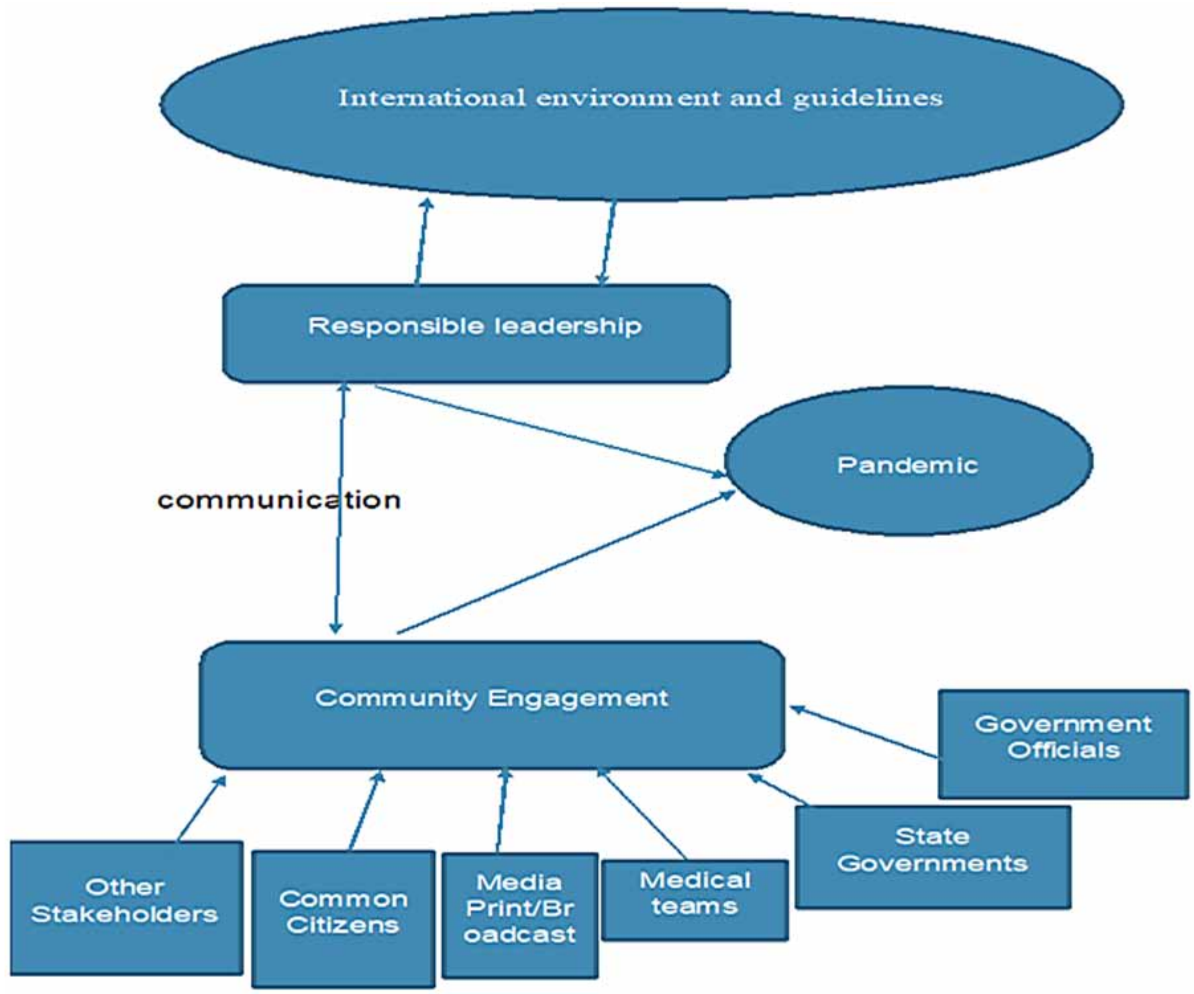
Media also had played a significant role in spreading the message of the Government in India. Comments mentioning the reflective actions on the part of the community could be possible through speed message delivery of media. The authors have used social media platforms for this study where comments bombarded with the lockdown, lighting of *diyas,* and encouraging frontline workers and doctors. PM appealed to the general public to display gratitude during this period.

PM continuous messages on social media and radio programs like *Mann ki Baat* revealed the next government w.r.t pandemic crisis. The Government was constantly talking to various state and central government authorities to keep them aware and take their inputs regarding the action plan. Comments collected for this research had specific mention of engagement of all the stakeholders by a leader in taking and informing decisions related to Pandemic. Comments like and thanking citizens for their discipline during the lockdown. For example, one statement said: "*It has always been a happy feeling seeing him (PM) on the TV screen guiding us; he is among the very rarest leaders who are fully dedicated to the nation. Let us hear him on the TV and obey him seriously".*

Comments reflect that awareness created on time through the initiative of responsible leaders at the national level helped the community reciprocate. Social media had a series of words related to pandemic-related help, a donation to PM care funds, migration of workers, etc. Many community heroes came forward to help poor people and migrant workers, for example, Mr. Sonu Sood and Mr. Vikas Khanna. The commentators had mentioned that everyone felt responsible in this situation where they could communicate their message faster and easier through social media or otherwise. Comments like "*In our small company, all the employees have contributed our one-day salary, we should always stand for our nation. Proud to be an Indian and proud that you are our PM"* mentioned such context. Based on the coding and analysis, the authors have proposed following community engagement model through constant communication as the key for successfully managing Pandemic. This model can be the guide to many countries at present as well in the future.

The authors came up with the following research model to guide the leaders from the collected data in the form of comments. The content presented above shows that a leader must undertake constant communication by considering the external environment. The responsible leader keeps in mind the priority of the stakeholders (Dana, 2020) and initiates two-way communications—keeping constant dialogue among the key participants in the significant takeaway from the Leadership demonstrated by Prime Minister Modi. Not only verbal but there was some symbolic communication like wearing a mask/ *gamcha* in front of the public while addressing the nation for lockdown on national television. Also, making people aware of what is the reality rather than showing false information. This analysis shows how Prime Minister Modi showed an excellent level of responsible Leadership through constant communication and engagement. The following model explains the process in detail.

Figure 1. This figure highlights the responsible leader and the entire engagement model, which explains that a leader in such a pandemic has to manage a pandemic



FUTURE RESEARCH DIRECTIONS

Communication emerged as one of the main themes, and the model presented above in the form of findings of the community engagement emerged through responsible Leadership in the context of India. Seeing the population of India, which is 1.33 billion, it is challenging to manage challenging conditions like a pandemic. Mikušová & Horváthová (2019) mentioned that communication is the key for managing crisis from the side of a leader. In the context of India, Leadership demonstrated by Prime Minister Narendra Modi and his unique communication strategy made this pandemic management easy. However, there have been challenges in managing the medical equipment and oxygen supplies during the second wave where the Indian States faced difficulties in handling. During a pandemic, people are constantly under anxiety, and quality and quantity of communication play an essential role during that time (Kaul et al., 2020). Prime Minister Modi had constant communication with the stakeholders from various parts, including medical teams, media and journalists, various state ministers, government officials, and ordinary people. He also interacted with famous sports personalities, radio jokey, and celebrities on the live streaming mode. Such communication was to clarify them and engage them in the additional set of the chain of communication, which leads to impressive communications from these stakeholders. These personalities were remarkable and influential on various social media platforms, including Instagram and all. They were involved in spreading a positive message to the community. He also stressed a lot on specific Hindi language '*do guj ki duri and mask hai jaruri'* from the conversation over *Mann ki Baat.* In this radio program, Prime Minister Narendra Modi conducts the program. Indian people were very much impressed with the messages given from his side, and through this, he developed the trust factors among them. PM also mentioned that the authors all collectively have to stop the spread of this virus. The community felt responsible through such kind of constant messages from his side. They believed that it was their responsibility to act as responsible citizens and follow the instructions issued by the Government. People also admired the Leadership, which had extended support to neighbors and other related countries for medicine help shout out by them.

The findings presented above reflect how the community got inspired by his message for demonstrating a small gesture of frontline workers to the abiding by lockdown measures. Leaders' actions and their receptiveness by the followers reflect the success of any action(Smircich & Morgan 1982). People in India showed the highest level of cooperation to the nationwide lockdown. While the entire world was facing a challenge in managing their citizens to adhere to the movement control, India had shown decent collective efforts in organizing this Pandemic. PM Modi's constant communication (Mehta et al., 2020) made the community engaged and pay attention to what has been asked from their side to obey. There were series of announcements post-*Janta curfew*, but the people of India have successfully managed all. Communication delivered by Leadership at the national level had created trust among the community (Helsloot & Groenendaal, 2017), and they supported Leadership with their actions. Leader through his soft power, can stick the stakeholders together (Dovey et al., 2017). Continuous awareness, addressing the nation on national television, handling communication drive on social media, ongoing dialogues among state governments, politicians, journalists, etc., made this community engagement more impactful. A leader had to have continuous communication, especially during a crisis (Bolman & Deal, 1997), and PM Modi demonstrated precisely the same. Besides the Leadership at the national level, many community volunteers had come forward to help migrant workers and the poor on the street; these have helped Indians manage this pandemic crisis (Apaliyah, 2012). The above example of community engagement reflects that when trouble comes up nation has to be ready with its responsible Leadership and constant communication so that community gets proper direction and can be engaged to the greatest extent. Communication had played a significant role along with other strategies at a national level in India since a small piece of misinformation (Reddy & Gupta, 2020) would have led to an excellent level of confusion in a country like India.

Though India has moved out of the lockdown phase, social distancing and unlock processes, have been happening in stages. Indian Government, along with their various staff and ministry, have tried to manage this Pandemic successfully. This research has social as well as leadership implications. This research will help the leaders at the global level as well as at the organization level. Indian Government's initiatives in the first wave of pandemics have been appreciated across the globe. In contrast, there has been criticism for late actions and control measures during the second wave (Kar et al.,2021). There have been many challenges Indians have faced during the second wave, but this chapter has covered the experience of the Indian community during the first phase of the Pandemic. The authors have presented the community experience and feelings through their posting on social media in this chapter. The authors understand the arguments and findings presented may have limitations in generalizing it globally.

CONCLUSION

In this chapter, the authors have mentioned the findings related to community engagement through responsible Leadership through constant communication. So far authors' knowledge concerning this type of research using netnography as a tool for data analysis is unique, and the findings presented exceptional outcomes in responsible Leadership. Results presented in this chapter have been based on the present methodology used, especially comments gathered from social media. As mentioned in the initial segment of this chapter, the administration of the entire world is struggling to manage pandemics since they cannot balance economic and social goals. The community at large follows what leader demonstrates and tells, provided they find their leader responsible. Hence, this study offers unique implications that have a policy and leadership level impact across the globe. Communication through various channels adopted by Prime Minister Narendra Modi has been well received by the entire nation, evident from most comments analyzed in this chapter. However, India, a developing country, has its challenges and advantages, while other countries have challenges. If a leader takes the fundamental principle of Leadership and manages Pandemic through constant communication, it would be the more significant learning and implication from this chapter. The conceptual model presented in this chapter can guide future empirical research work where various methods can be adapted to research and work on the same. However, the authors do not claim that the same methodology can be used in another setup to conduct such research. Still, looking into the present scenario, mainly when this research was conducted, social distancing norms have been adhered to and reached the mass community through social media. This research method has been used optimally by looking at the present scenario.

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KEY TERMS AND DEFINITIONS

Communication for Community: Information and communication to general people, especially during crisis.

Community: Group of people who stays at the same place/country and sharing some common goals among them.

Netnography: It is an online research method which has origin in ethnography.

Pandemic: It is a global epidemic which spreads in more than one continent.

Responsible Leadership: A responsible leader thinks for all stakeholders while taking decision. It includes actions of Leadership more responsible and accountable.

Chapter 4
Criminal Policy, Security, and Justice in the Time of COVID-19

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ABSTRACT

This study explains the necessary elements in controlling and reducing harmful and incompatible social phenomena with the nature of existence to design correct and challenging social and scientific models using comprehensive approaches to criminal policy and chaos theory.

INTRODUCTION

Human history is full of events and happenings that have produced horrific results and effects. But what is more unfortunate is that by paying close attention to the causes and factors of their occurrence or analyzing these events and phenomena outside of their time and place, it can be understood that many of these catastrophes were preventable and controllable, but negligence, indifference, or one-sidedness. Rulers and trustees with different political, economic, racial, etc., motives have caused many bitter and damaging experiences (Ansel, 2012). The beginning of 2020 coincided with a bitter experience caused by the spread of the Covid-19 virus and the suffering of hundreds of thousands of people, which resulted in the loss of hundreds of thousands of lives, more than the loss of public panic and the loss of peace and tranquility of human societies. And disruption and even cessation of social life and human and international interactions. The Covid-19 epidemic has taken today's arrogant human beings and the world community so passively and by surprise that declaring a state of emergency and emergency was the only logical option. The most important cause of this general fear and anxiety is the ignorance of humans and societies about the nature of this virus, how it works and how to control or treat its patients. In the words of "Jürgen, one of the greatest philosophers of the present day, the occurrence of the Covid-19 phenomenon of human consciousness concerning Habermas" added to his ignorance(Aghmashhadi & Naghibi, 2017). By conquering the great peaks of science and technology and the astonishing dominance of nature, industry, and technology, Twentieth-century man had gradually reached the illusion that he

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might be the ruler and ruler of the universe. But the sudden and very rapid onslaught of the Covid-19 virus exposed this arrogant third-millennium man to his compound ignorance and showed his helplessness in dealing with the epidemic and managing it. One of the serious ambiguities associated with the Covid-19 virus is the cause and origin of this virus? Is it constructing the human will that has fallen into the mire of morality, or is it the result of natural interactions and irrational manipulations of man in nature and the system? In any case, it should be said without a doubt that one of the important contexts for the occurrence of many threats to social life, including floods, hurricanes, pollution of biological and water resources, air pollution and even their lifestyle, and emerging and unknown epidemics(Birkland, 2017). How man interacts with the universe and his inventions and innovations in its general sense and the method of analysis and critique of social phenomena, or the type of human attitude to the phenomena and relations around him, is special. The latter element depends on the depth of scientific view and the amount of human knowledge and awareness not only of any social event or scientific achievement but also attention to the effects and sufficient information about the future consequences of that phenomenon and, more importantly, its effect on interaction with other natural phenomena and elements. And man is within a complex network system. In the eighteenth century and its heyday in the nineteenth and twentieth centuries, with the advent of modernism, stunning advances in medicine, biology, industry, and new aerospace, telecommunications, and cyberspace were achieved. It spread to the realm of the humanities, the obvious result of which was extreme specialization and particularism as one of the salient features of the present age. Although these island and partial approaches, in the first place, caused human pride in achieving brilliant and dazzling results, due to the lack of a comprehensive, multifaceted, and networked view of social phenomena and events, their unfortunate effects and effects are negligible. Many of the current heterogeneous and unpleasant dangers are rooted in the simplifications of social and human events or the details inherited from the modern era. With the drawing, the failure of many previous policies and approaches and the lack of establishment of the utopia to cause thinkers explored these failures, and new suggestions and solutions were presented in response to these failures. Among these solutions in humanities and law, we can mention theories derived from the study of criminal policy and chaos theory. The approach of criminal policy as a solution in the face of contemplation in scientific methods and research and re-reading social phenomena helps us correct and comprehensively understand phenomena and avoid ignorance and one-sidedness. Analysis of the Covid-19 virus phenomenon requires in-depth study of various aspects, including medicine, ethics, philosophy, jurisprudence, society, politics, and law, Human rights, criminology, and criminal policy can be studied in this study; the case of the Covid-19 virus is analyzed exclusively in the form of a preventive approach to criminal policy based on scientific data from the theory of chaos(Behnia et al., 2007).

ANALYSIS OF THE SOCIAL PHENOMENON IN TERMS OF CRIMINAL POLICY

Considering that on the one hand, the concept of criminal policy is unknown concerning the subject of the article and especially to the general audience of the article, and on the other hand, many specific audiences also understand the concept of criminal policy without historical developments and only in the realm of criminal law. And they understand; this article tries to present a completely new understanding of criminal policy that goes beyond. This new interpretation of the term's two concepts and its traditional realm, and in the meta-conceptual term of criminal policy, is consistent with the concept of chaos theory and systemic analysis of the social phenomenon. Therefore, first, the historical and conceptual developments of criminal policy are presented, and then the elements and components of a criminal policy that are effective in analyzing social phenomena are mentioned(Delmas-Marty & Izorche, 2000).

The Conceptual Evolution of Criminal Policy

From criminal policy to transtheoretical criminal policy has a new model in analyzing criminal and social phenomena over several, but the current approach of the last decade has gained a very important place in criminal law. It is the result of passing through traditional and very different concepts to understand this new interpretation, and it is necessary to mention the old definitions briefly. In general, the concept and realm of criminal policy have gone through four different stages and concepts:

Criminal Policy in the Sense of Criminal Law

This is the definition used by jurists in the nineteenth and first half of the twentieth century for the first time. And how. A new identity had emerged from the institution of government, in which the focus on national policy in Europe was seen as a new value and achievement, which was also reflected in the realm of law. According to Feuerbach, the criminal policy is "a set of repressive measures used by the government to fight crime." As can be seen, the three concepts of repression, centralism, and state acting are important elements of this interpretation, and its most important innovation is centralism and the exclusive role of the state as the manifestation of elites and pure reason in recognizing good and expediency. Subsequently, Donadio Duaber used similar terms until the first half of the twentieth century. In this sense, the criminal phenomenon was committed directly and directly by the perpetrator, and the law is a reaction to the violation of the norms defined in other words. He was subjected to severe and repressive punishments, often corporal punishment(Dandurand & Griffiths, 2006).

Criminal Policy in the Sense of the Welfare Approach

After World War II and the heavy human and social losses suffered, the need to review social and legal policies became inevitable. Criticizing the superior position of governments, which results in the sacrifice of thousands of weak and defenseless people, Philip Gramatica and Mark Ansel sought to strike a balance between the interests of the two sides and to question the primacy of the interests of a new society, assuming that the interests of society are intertwined. Mark Ansel's approach to modern social defense sought to humanize criminal law and adequately explain the humanitarian criminal policy that ensured that the rights of defendants and convicts were respected in the trial process(Follesdal, 2011). At this time, with the ratification of international legal instruments, including the Universal Declaration of Human Rights as well as the Covenants on Civil, Political, Social and Cultural Rights, an important change was achieved in respecting the rights of the accused and paying attention to human dignity in political and legal systems. Although granting these rights was done to recognize the fundamental and inherent human rights and derived from the principle of natural human dignity, it was considered a kind of extraordinary grace and privilege assigned in the post-accusation stage and the trial process. In this approach, as in the previous stage, the analysis of social phenomena, especially delinquency, results from choosing the independent and free wills of accountants. The most important innovation of this stage is that in the trial of individuals, the fair trial process and their legal rights should be considered(Hjarvard, 2008).

Criminal Policy in the Broadest Sense

Based on this approach that Delmas Marty, the theorist of criminal policy, has proposed in its new concept and has been presented and considered in the last few decades of the twentieth century, the analysis of the criminal phenomenon has found a new concept and realm. Involved the realm of criminal law in managing and responding to the criminal phenomenon. According to this definition, "criminal politics is a set of methods, rituals, and methods through which the body of society (community body) organizes and applies various responses to the criminal phenomenon, i.e., crime and perversion." According to this definition, active and important elements to respond to the criminal phenomenon are removed from the state's monopoly, and public participation and cooperation are provided to all social institutions, including government, people, and society. Methods also went beyond the monopoly realm of repression or reform and became very diverse and complex, but still, planning is based on the criminal phenomenon, i.e., crime and perversion, which is like a kind of reactionary policy active(Hepple, 2008).

Criminal Policy in the Sense of a Transhumanist Approach

In this approach, the mission of criminal policy is to analyze the social phenomenon in its general sense realistically, and not necessarily the criminal phenomenon as one of the examples of the social phenomenon. Contrary to traditional and former concepts, which present only instinctive reactions or reactive responses to the criminal phenomenon, in this important approach, each phenomenon and element in the occurrence of an anomaly that has the potential to become a criminal is studied. One of the important differences of the transcendental approach is that the analysis of social phenomena is not limited to direct or indirect causes, but all indirect and primary causes or factors must also be considered. Analysis of social phenomena based on the principles and data of modern sciences based on network and intersystem or transthoracic analyzes seeks to move away from superficial and superficial analyses, parallel with the progress and development of science and the deepening of human knowledge to deepen the causal analysis. Consequently, public policy-making The criminal policy in the metanarrative approach combines public policy-making and criminal policy(Halligan et al., 1980). New human knowledge data seeks to prevent and manage harmful events by modifying the methods and eliminating the causes and factors. To prevent the criminal phenomenon, a clear example of this method of analysis is the lack of attention to social justice in political systems, and especially in the American liberal society, which in the current year (2020) due to lack of proper performance in crime detection or proper method of prosecution and interrogation of defendants should be safe. It became a destructive and destructive act. In public health, misguided policies or lack of optimal policy-making or inadequate oversight of performance, even in a remote and remote area, have led to concern and even a global and security crisis such as the outbreak of the Covid-19 virus this year (2020). Therefore, it is time to move away from partial and superficial views, analyses, extreme specialization, and islands inherited from modernity and resorted to systematic and multidisciplinary causes. Every criminal phenomenon must be analyzed and examined by a treasure trove of causes, factors, and social phenomena to arrive at the field of network analysis from the responses influenced by the culture of repression. With these preliminaries, the definition of criminal policy in the approach of Franguart approach Measures, methods, goals, and tools used by the human environment to identify and deal with social phenomena with criminal effects. "According to this definition, the first axis of criminal policy changes from the criminal to the social phenomenon; the second from the approach Action and passivity change to a dynamic and preventive approach; Third, by relying on the primacy of the principle of prevention over punishment, criminal and traditional tools are given less value and are gradually replaced by non-criminal goals and methods. For this reason, the boundaries of criminal response and public and non-criminal responses and the boundaries of public and legal policies also have more in common. As a result of binary studies, they have an independent identity and essence(Hall et al., 2020).

Elements and Components of Criminal Policy

More Issues, Controversies, Problems

Human dignity is a sacred concept and word that can be considered the central and inspiring core of all moral, philosophical, religious, and legal teachings and ideas of all reformers of history and, finally, the essence of human rights in its new meaning. Today, the establishment of any legal rule in its specific sense or the adoption of social policies in various political, cultural, economic, and public spheres in the sense

It should follow the rule of the "principle of inherent human dignity" as the most important fundamental rule in policy-making. All international instruments and treaties, especially the three generations of human rights that have been drafted and ratified since the Second World War, are intended to protect and guarantee the observance of this inherent and essential human value. Any legal policy-making in the framework of combating the criminal phenomenon must be done in compliance with the principle of inherent human dignity. The translation of inherent human dignity is manifested in some theoretical and practical principles and values that these elements can be divided into two categories, one is the concepts and values of fundamental and the other is individual and practical rights, as follows(Higgins-Desbiolles, 2020):

Fundamental Concepts and Values in Policy-Making

To observe the principle of inherent human dignity in policies and executive actions, four fundamental values must be considered and observed to claim a commitment to human dignity. These four values are freedom, equality, justice, and security. 2 "Freedom" is one of the fundamental values of human society. God created man free, and God's servitude is, in fact, a bed for liberation from any material bondage and a guarantee for this freedom and prohibition of slavery in interpersonal relations. One of the important principles of human rights is to pay attention to the value of freedom as the most important element that upholds human dignity. But unfortunately, throughout human history, rulers, powerful people, and various social groups with different motives have disturbed and attacked the freedom of others. Many of man's crimes and bitter experiences, and even his brilliant achievements, have been associated with the concept of freedom. The concept and realm of freedom have also changed a lot during human life. Today, unlike in the past, the concept of freedom, which was only the prohibition of aggression, rape, and slavery, has a wide variety of applications, including political, religious, cultural, social, occupation, immigration, etc. More importantly, each of these concepts has been one of the great challenges of the last century. One of the concepts of freedom and its territory is the legal and social guarantee for its preservation or the executive guarantee of its violation, which can objectively embody the fundamental value of freedom of credit and the inherent dignity of human beings. "Equality" is the second most important element in guaranteeing the fundamental value of human dignity. No human being has an inherent and primary superiority over another human being(Habibzadeh & Farajpoor, 2016).

The correct understanding of this concept is that differences are by no means superior; Rather, it is a gift for greater diversity and cognition. Today, the concept of equality has found very deep meaning. It is related to other rights and situations, which are the basis of many demands of human beings and societies and the basis of many movements, riots, and protests today, even in developed and industrialized countries. The principle of equality means denying any discrimination and political, economic, cultural, occupational, etc., privileges. With this approach, traditional instances of the concept of equality, relying on its in-depth and systematic analysis, are not convincing and sufficient today; Rather, it is expected that individuals will enjoy all equal legal and real opportunities and opportunities.

The mere existence of a prosperous and different country, as an objective model, instills a feeling of inequality and discrimination in the people of other lands. In many cases, the cause is unimportant; Rather, its reality and practical consequence are considered. Equal dignity and worth, destiny, and common land in its general sense have given rise to this perception and expectation. Various examples of equality manifested and demanded by human beings today are the right of all individuals to equal opportunities and opportunities, especially in holding public, social and political jobs. Based on systematic analysis and networks of social phenomena, violation of any of these human expectations today, which has become a creature of diversity, extravagance, and quality, according to the theory of chaos or butterfly theory, cause a social, national, and even global crisis. Many security incidents in the last few decades show that such small incidents have caused them. The equal right of individuals to health care is also one of the concepts and examples of equality in the occurrence of events such as the spread of the Covid-19 virus and the attention of the people on the one hand, and the warning of thinkers and politicians for non-compliance in most human societies. It was on the other side. However, Habermas, the great philosopher of the present age, explained one of the effects of the Covid-19 virus as equating individuals with the concept of death caused by this phenomenon. But this perception does not seem very realistic and correct; Because, although in the first place all individuals and strata were exposed to an equal threat against this deadly virus, its results and effects are distorted due to the lack of equal conditions and facilities for treatment; Because not all people are equally at risk of death(Hosking, 1993).

In systemic analysis, public conditions and social strata should be designed and planned so that such discrimination does not occur and all members of society exposed to equal threats have equal opportunities for growth and promotion; Otherwise, they may be equally exposed to turmoil and crisis. “Justice” The concept of objective and material justice is one of the important foundations of valuation in the present age. The provision and realization of justice have been one of the long-standing aspirations of humanity, which has been the source of great changes in different societies and historical periods. Today, the concept and examples of justice have been developed based on modern and universal epistemological foundations. Along with the changes that have taken place in the concept and examples of freedom and equality, the concept of justice has also undergone a quantitative and qualitative transformation and development. The catastrophic First and Second World Wars created such chaos and disorder that the international community sought to bring about fundamental changes in the management of world affairs and provide a minimum of justice within the framework of common rules. Do not be harmed. The preamble to the Universal Declaration of Human Rights states: “Basically, human rights must be protected by the rule of law, so that human beings, as a last resort, must rise against the tyranny and, regardless of the steps taken, And the administration of justice is still a very vague and unattainable ideal. This lack of access to desirable justice, in addition to being due to the failure of the functioning of the political, social, and legal systems; At the same time, it is due to the continuous development of the territory and the examples of the concept of justice and the presentation of new understandings of it(Johnson & Burton, 1994).

For this reason, this concept is still one of the important factors of social events and phenomena. Examples of justice in the present age have become very diverse and have spread in a broad sense. The most important examples of justice are: judicial, political, economic, cultural, racial, geographical, educational, food, etc. justice, which is due to the deepening of human knowledge in explaining the concepts of each side, and the interaction and communication within the networks of these concepts. Each other and the development of globalization and the common human understanding of values , on the other hand, can be very effective in the formation of norm-breaking social phenomena. One of the obvious examples of the concept of justice is distributive justice in health and treatment and health, the non-observance or non-establishment of which in the community can cause social and human crises and dangers. Justice in the enjoyment of human rights enshrines the concept of inherent human dignity. The right to health, the right to education, the right to employment, the right to treatment, the right to identity, the right to a fair trial and the right to minimum nutrition, and the right to clean air is among the elements that ensure social justice as the most important link between interests and destiny of community members to share it.

One of the pioneers of the concept of public justice, the greatest Christian thinker, "St. Thomas Aquinas in the thirteenth century, who considered the establishment of public justice instead of justice," a private necessity. But it is clear that his view was merely to replace the state and society with the victims in the execution of punishment and corporal punishment and has nothing in common with today's perception of public and social justice. In today's world, due to the development and deepening of human knowledge and the discovery of new dimensions of basic concepts and values, such as social justice and the concept of inherent human dignity, has found new development and dimensions; Therefore, the distance between facts and desirable justice has not only not decreased, but has also become much greater and farther away. A look at the uprisings and protests of the United States, the world's leading industrialized nation at the time of the outbreak of Covid-19, due to a lack of social justice and the practice of discriminating against institutionalized policies in the era of discriminatory policies. In the past, justice had an abstract concept that was described and explained by scholars and rulers. Its negative description prevailed over its positive aspect, and finally, the application and execution of punitive and corporal punishments for criminals or non-punishment of perpetrators. These traditional conceptions of justice have no validity today. Its obvious and objective manifestations are justice that appears in the everyday realities of society, that is, the extent and distribution of social justice, restorative justice, the benefit of human facilities, and expectations.

An important and final point about the fundamental value of justice is that in the current situation, due to the positivist approach to justice and its objective manifestations, populist conceptions in various political, social, and even legal fields are considered one of the most important. But in the past, elite abstract concepts were the standard of justice(Kaiser, 2020). In other words, today, one of the criteria for social justice and distributive justice is to satisfy the audience or public expectations. Based on these theoretical foundations and social approaches, in all world countries, including backward, developing, and advanced, we are witnessing repeated social crises due to dissatisfaction with social conditions and relations. Many of these crises are rooted in human expectations of welfare rights and the interpretation offered by ordinary people from different angles of social justice. In the light of these principles and facts, transtheoretical criminal policy and chaos theory seek to provide a realistic analysis of the fundamental elements and components of the concept of inherent dignity to simplify the world from a superficial to a superficial point view. Make less contrast. It is one of the basic and historical values and ideals of human life. The concept of security "Security" has been one of the relative and variable concepts throughout history, the conditions and elements of which have changed a lot(Kaiser, 2020; Silva, 2015).

In the past, conceptual security was interpreted as more negative, i.e., lack of causes and factors threatening life and property. In other words, the physical and objective aspects of threats were superior to other dimensions. But today, the concept of security has more positive and positive aspects; That is, in addition to the absence of causes and factors of danger, the threat and fear of having positive conditions and providing comfort and tranquility due to necessity are inevitable. Accordingly, in addition to the objective and situational concept of security and its psychological and emotional concept, the need for the disappearance of hazardous elements and the element of trust and confidence in the future is considered. Given that today the concept of security has changed from a negative nature and a positive to a qualitative nature, it is obvious that its territory, like other concepts and fundamental values, has been highly developed and has found new examples and manifestations that provide some of these Examples are difficult and even unattainable. Traditional instances of security were limited to instances such as political, geographical, and military security in the realm of public law and life security in the realm of individual rights. But the new instances of security, which are the responsibility of political and social systems, have become very diverse and widespread; Including economic security, job security, psychological security, security at local, urban, national, and international levels, social security, judicial security, cybersecurity, food security, and human security. All manifestations of security require the provision of conditions for the continuation of activity and the enjoyment of a situation in which there is no threat or sense of danger. The possibility of benefiting from an uplifting movement that results in calm. Thus, one of the characteristics of modern life is reasonable worries about the unstable situation and transient and continuous social changes, which result in a lack of security and the occurrence of aggression and dissatisfaction(Hosking, 1993).

Social Security or Balance Between Fundamental Values of Freedom, Equality, and Justice

As noted, the four core values and components of public policy, including the principles of freedom, equality, justice, and security, are among the concepts that have led to the coherence or disintegration of the social life of human beings and societies in the vast realm of human history. These four values, which are also part of fundamental human rights, have very complex interconnections and internal systemic relations while being four independent principles and rules. The Western liberal system, with its extreme reliance on the value of freedom and without regard to the important values of equality and justice, thought that it had guaranteed security, and especially social security, for its society. But the recurring events and social crises of recent years, especially the social protests of the United States in 2020, have made it clear that, due to the lack of a proper balance between these fundamental values, it has created a crisis and turmoil. Political systems based on the theory of the primacy of equality over other values at the point of confrontation of political systems, derived from the school of liberalism, relying on the primacy of the principle of equality and the use of power to establish it, have forced many societies to exist for almost a century. But ultimately, due to a lack of commitment to other fundamental values in public policy-making, social security is, in fact, the result of a reasonable balance between the obvious, the concept and the realm of the concept of security, and the concept of the value of the security. Social and values such as justice, equality and freedom, fluid concepts, and changing political, social, and historical conditions are controversial(Johnson & Burton, 1994; Shahibzadeh, 2015). One of today's era crises is the interpretation and explanation derived from these fundamental concepts and values. Although in the past the rulers and those in power were the interpreters of these concepts and from the Renaissance, this status reached the elites and thinkers, but today and at the beginning of the twentieth century, the interpretation and the will of the citizens and the common people are governed by the interpretation of these concepts. In any case, social security and its quality is a reflection of the type of systemic relations and how fundamental values interact and balance with each other and its real and social feedback in the social arena. The most important element in evaluating these feedbacks will be the quality of interpretation and perception of the public and the majority of people of social values and realities that, even before the interpretation of rulers and elites, impose themselves on political and social systems. One of the most important manifestations of social security is mental, social, and social health, manifested through the right to health and treatment. The prevalence of epidemics, such as Covid-19, by surprising people and the health system of the people and society at the national and international level, deprives them of psychological and social security and affects other fundamental values and is one of the most important. Or the predominance of public opinion has even disturbed and suspended the people. The interpretation of these values by the elites and rulers goes back to the nature of the concept of right, which is to find objectivity in the real world and become tangible to the general public(Higgins-Desbiolles, 2020; Salari, 2018).

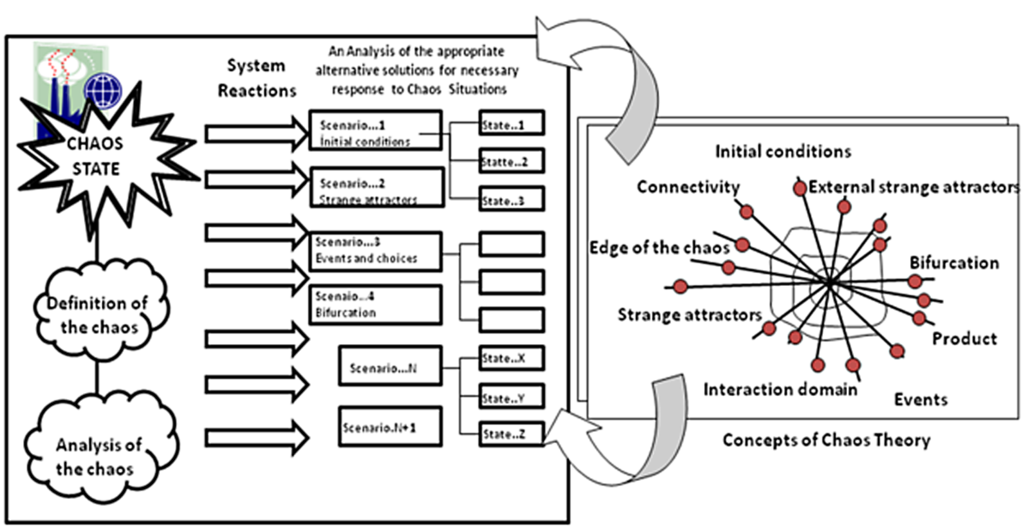
COVID-19 EPIDEMIC ANALYSIS FROM THE PERSPECTIVE OF CHAOS THEORY

The first idea for turbulence theory was first proposed in January 1963 by an American thinker named Edward Lorenz in the journal Science Atmospheric and an article in meteorology called definite non-periodic current. The idea put forward in this article by the author was later completed and explained at a conference in 1972 entitled "Theory of the Butterfly Effect," which has been known and cited by the same title ever since. The butterfly effect theory gradually spread from climate issues to other fields and became a suitable model for scientific and social studies. According to the author of this article, the theory of the butterfly effect in the field of humanities, especially sociology and law, can be considered as one of the most valid theories in the analysis of social events and phenomena; Because this theory saves man and human societies from the superficiality and naivety that has always plagued humankind(Kattan, 2012).

Theory of Butterfly Effect and Chaos in the Analysis of Social Phenomena

Today, in analyzing phenomena and pathology of social events, special attention is always paid to the relationship between cause and effect as great scientific progress and logical view. For many years in human history, many events have been considered as a sign of the dominance of the devil's will over the human soul and the punishment of human beings, including the wise and the insane, children and animals, and even non-living beings is a bed to fight the devil. They considered moral order and intrinsic values(Morrison, 2014; Shamloo & Kazemi, 2015). Despite this scientific progress, the realization of the causal relationship and the study of the causes of the occurrence of a social phenomenon was limited to direct causes and factors, and the unlikely causes are not only considered by the theory of butterfly effect in scientific and experimental methods and even in the field of water. The weather proved that sometimes unlikely and indirect causes could cause terrible and huge consequences and events like a hurricane. In other words, based on the logic of butterfly theory, human knowledge and science penetrated the lower and primary layers of causes and factors of social phenomena, and man was able to gain a more realistic view of the world around him and the results of his social performance. The "butterfly effect" theory states that a minor change or an unimportant and mediated factor can initially lead to a very large change at the end of natural, social, and human processes that took place in the past and perhaps centuries of minor and insignificant factors in any way. Were not considered and should be set aside. But the theory of the "butterfly effect" distorted this customary approach and the theories based on it, proving the opposite(Marquet et al., 2010). On the other hand, with the emergence of systemic and network theories as one of the important scientific achievements in discovering the complex relations of phenomena, the theory of the effect of butterflies, which in this regard discovered hidden angles of internal relations of phenomena, has been promoted to this position. It was revealed and confirmed. Edward Lorenz's theory, which was developed in meteorology, is not only a simple and short-lived theory of interpretation, but because of its strong scientific and logical foundations, it was gradually applied and cited in other fields and strengthened. Under the heading of the theory of chaos, other thinkers, the theory of chaos, which is a complement to the theory of butterfly work and is compatible with the logic of transcendental criminal policy, has led to a great change in deep and analytical understanding. According to chaos theory, we have to go beyond the simple conception and apparent analysis of social phenomena and interpret each event as the result of the interaction of a set of different factors and events within a network of complex systems(Mangiarotti et al., 2020). In other words, no accidental social event occurs, but we are unable to comprehend it. Therefore, random and even enigmatic events undoubtedly occur due to different factors and systemic order frameworks. Therefore, considering the mentioned principles and issues, the definition given in the following can be confirmed. "Chaos theory is a set of mathematical and geometric techniques and methods for studying nonlinear, scattered, and irregular problems that are characterized by randomness and unpredictability." According to this definition, many phenomena that appear to be nonlinear, irregular, and random have their logical order; However, it is necessary to pay attention to the sensitive but unimportant conditions. According to the mathematical method, if the computational result is calculated up to six decimal places, removing the last two digits can have an extraordinary effect on the results(Miller & Blumstein, 2020). Figure 1 shows the chaos theory and its way of impact on the social crisis.

Figure 1. Chaos theory and society



DISCUSSION

Chaos theory was based on the logic that small and primitive elements, usually out of the ordinary and scientific analysis, should be considered, and their removal from the causes would be irrational. Also, a large storm may occur under the influence of a butterfly's wings as the primary cause. According to Lorentz, who described the world order as chaotic, weather forecasting is strangely dependent on small issues.

The fundamental question now is whether the occurrence of unknown phenomena such as the Covid-19 virus, which has plunged the world into a surprising crisis and to which human science has not yet been able to discover its cause, can be examined by the logic of chaos theory. If the fluttering of a butterfly in Brazil can cause a hurricane in Texas, or if the omission of two decimal places with six decimal places may change the results and analysis, it is a mathematical or mathematical field in the field of social affairs geometrical computational method(Martin, 1994). Or the criminal phenomena of payment and the principle of criminal responsibility or combating the causes of the crime in the logic of linear responsibility or nonlinear responsibility to which series of causes and causes can be extended? Isn't the emergence of the Covid-19 virus one of the most obvious examples of chaos in the world? In response, it should be said that the mode of interaction of Covid-19 virus and the complexity of its occurrence, and the various assumptions that are raised in its creation and development, on human ignorance of the cause and conditions of its creation on the one hand and the nonlinear logic governing it on the other. Finally, the need for complex and systematic struggles to control this phenomenon, despite ignorance of its nature and its irregular or chaotic logic, has a clear implication. Even now, all scientific centers in the world, neglecting to analyze the factors of its development, are more interested in discovering the control mechanism, preventing its development, and finally treating it(Niazpour, 2015; Sajedi, 2015). Chaos theory has been used and proven in certain fields such as meteorology, art, management, etc., but in social fields such as health and law, due to the complexity of systemic causes and factors in discovering phenomena and the historical deposition of linear logic. As the most valid and logical way to discover the causal relationship, less attention has been paid. This weakness and ignorance or lack of history of practicing this approach can not deny and deny the effect of simple and primary elements or nonlinear causes in events. The theory of turbulence and the butterfly effect teaches us that turbulence in all aspects of life is an inevitable and objective fact, although we are not aware of it. But it is carefully observed in the set of systemic factors that all these perturbations are structured but hidden; You are like the order that governs the set of galaxies in the order of the universe. With all the astonishing and dazzling advances it has made over the last two centuries, medical science has given its great human mission to save humanity from physical and mental suffering and ultimately save human life at once against epidemics such as Spanish influenza(Nolte, 1994). It becomes passive as if it were in compound ignorance or the early stages of progress. Undoubtedly, these chaotic phenomena also follow the specific logic and the complex and unknown interaction of a set of elements that human science has not yet become aware of(Norouzi & Ataei, 2021; Petoft & Abbasi, 2019). In other words, as mentioned in the first part, the existence of the dominant logic of modernism, which is the same linear logic and partial and island view of the causes and factors of social phenomena, has deprived human societies of a comprehensive view and attention to nonlinear causes. The most important weakness of medical advances is following linear logic. The discovery of drugs and the production of vaccines after experiments in laboratories and then against animals with human-like biology, and finally the application of experiments on a number, if the logic of the theory of the human sample will spread the result to all humans. Due to the lack of attention to all the nonlinear elements and factors affecting the human institution, society, and nature, chaos states conclusively that such a method is associated with many errors and great risk corrected and revised from time to time(Norouzi et al., 2021; Rasekh, 2007). Human and medical systems surprises with the emergence of epidemics, such as the Covid-19 virus, regardless of the neglect of the simple primary and peripheral factors that cause it; The adherence of these phenomena to an unconventional and unknown logic called chaos theory also indicates that understanding its logic requires a study of a set of related causes and factors such as the disruption of a butterfly wing in examining the cause of a storm(Norouzi, 2021; Neuwirth, 2018). Man's inability and ignorance to discover it cannot lead to its denial; However, the same logic has been carefully considered in many discoveries in the field of chemistry or physics or astronomy. But in the humanities and social behaviors and phenomena, it has unfortunately been neglected, which has seriously threatened human life and nature. Today, in the realm of evaluating human social performance, risk theory has been considered in some cases, but the recognition of human responsibility has been accepted except in case of violation of its conventional and approved standards. If this risk is very small and unacceptable in exact sciences such as physics, chemistry, and biology, it completely transforms laboratory results. Occurrence of social crises with abundant human and social damage such as floods, hurricanes, climate change, fires, and especially the emergence of deadly epidemics such as Covid-19, which, according to Habermas, exposed human ignorance to him, alerted the system. And the scientific logic of human society is considered to require a revision of the methods, goals, and tools available in the discovery and analysis of social phenomena (Norouzi & Movahedian, 2021).

CONCLUSION

The global spread of the Covid-19 virus has demystified human beings obsessed with scientific and industrial advances who claim to dominate the world around them and have made them aware of their weaknesses and shortcomings. At the same time, he gave a great warning to politicians and the government of men and proved that the plans and policies presented in the general sense have serious flaws, deadlocks and negligences, and even in the fields of medicine and medicine. The astute and expert physicians were also surprised and confessed their ignorance. This surprise led to the consideration of risk-based logic, both in its reaction to the Covid-19 virus and everyday and social life, and institutionalized the application of the rule and logic of relativism in everyday decisions and choices. On this basis, in addition to politicians, physicians, and actors in the healthcare sector, they were subjected to great trials and experiments in crucial and risky choices. One of the major challenges in adopting public policies and countering Covid-19 has been the crucial choice between preserving the lives of ordinary, vulnerable people on the one hand and maintaining the prosperity and economic life of society, and avoiding social crises on the other. A choice that faces serious criticism in every aspect, especially the preference for prosperity and economic life. However, as long as a person does not reach certain knowledge and awareness, he has no choice but to make decisions based on the rule of risk. The theoretical foundations of transcendental criminal policy and the theory of turmoil, which emphasize the need for a thorough understanding of all aspects and dimensions of any social phenomenon, do not provide a serious critique of risk-based approaches that are certain. According to the theory of "butterfly wing" or the theory of "turmoil," the performance of the world medical system and all actors in the field of health and hygiene is only part of a macro policy in the social and public spheres, and its success or lack of success in all respects. Related items can not be expressed correctly.

It should be acknowledged that today, although the ignorance of the people and policymakers about discovering the deep cause-and-effect relationship in designing a dynamic system compatible with the external dynamic environment is a matter of course, And the fundamental and constituent values of human dignity have risen rapidly. Today's world is a world of rights and demands. The right to equality, the right to justice, the right to liberty, and the right to security, especially the broad interpretation of the concept and realm of security and social justice, oblige states and political governments to be accountable and provide a minimum system. The twenty-first century, which is the era of rapid and digital change, has very special features that do not follow past centuries' simple and superficial logic. On the one hand, on the other hand, modern man is a diversified, deconstructive, extravagant, and direct interpreter of social phenomena.

On the other hand, social phenomena follow a chaotic logic that is not necessarily subject to linear logic or the logic of traditional criminal policy. Many social phenomena cannot be evaluated and recognized by common and traditional methods. These phenomena must be explored and studied within a dynamic system based on nonlinear patterns, scattered and seemingly orderly, while today, human knowledge has an understanding of many events with a nonlinear logic. The spread of the Covid-19 virus is one of those phenomena that cannot be assessed and recognized by simple linear logic. But this bitter experience showed how the right to human health was violated and neglected due to negligence and ignorance in public policies or the pursuit of selfish and short-term interests and interests, and many people were killed. The bitter experience of being infected with the Covid-19 virus has clearly shown that humans need new tools and in-depth insights into analyzing phenomena to reduce their ignorance and misguidance through complex systemic and intranet relationships. The theory of transcendental criminal policy and the theory of chaos, which provides a deep and comprehensive analysis of all causes and factors related to events and phenomena, i.e., prevention and control, receive special attention. The principle of prevention before treatment as a basic strategy is at the heart of public policy. Also, in the fight against Quid 19 virus, due to the lack of knowledge about the origin of the phenomenon and the lack of ability to treat it, the prevention and quarantine approach with the slogan "Stay at home" has been considered the best control and monitoring policy. It is necessary to seriously question the current and past policies, the grounds for reviewing the policies adopted in the fields of industry, environment, health, and treatment, and even the educational system to prioritize the intrinsic and fundamental value of human dignity, equitable education and provide peace for all.

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KEY TERMS AND DEFINITIONS

Chaos Theory: Chaos theory is a branch of mathematics focusing on the study of chaos — dynamical systems whose random states of disorder and irregularities are governed by underlying patterns and deterministic laws that are highly sensitive to initial conditions. Chaos theory is an interdisciplinary theory stating that, within the apparent randomness of complex, chaotic systems, there are underlying patterns, interconnectedness, constant feedback loops, repetition, self-similarity, fractals, and self-organization. The butterfly effect, an underlying principle of chaos, describes how a small change in one state of a deterministic nonlinear system can result in large differences in a later state (meaning that there is a sensitive dependence on initial conditions). A metaphor for this behavior is that a butterfly flapping its wings in Texas can cause a hurricane in China.

Civil and Political Rights: Civil and political rights protect individuals' freedom from infringement by governments, social organizations, and private individuals. They ensure one's entitlement to participate in the civil and political life of society and the state without discrimination or repression.

Discrimination: Discrimination is the act of making unjustified distinctions between human beings based on the groups, classes, or other categories to which they are perceived to belong. People may be discriminated against based on race, gender, age, religion, or sexual orientation, as well as other categories. Discrimination especially occurs when individuals or groups are unfairly treated in a worse way than other people are treated, based on their actual or perceived membership in certain groups or social categories. It involves restricting members of one group from opportunities or privileges available to members of another group.

Equal Opportunity: Equal opportunity is a state of fairness in which individuals are treated similarly, unhampered by artificial barriers or prejudices or preferences, except when particular distinctions can be explicitly justified. The intent is that the important jobs in an organization should go to the most qualified people – persons most likely to perform ably in a given task – and not go to persons for reasons deemed arbitrary or irrelevant, such as circumstances of birth, upbringing, having well-connected relatives or friends, religion, sex, ethnicity, race, caste, or involuntary personal attributes such as disability, age, gender identity, or sexual orientation.

Equity: Equity is a particular body of law developed in the English Court of Chancery. It is not a synonym for 'general fairness' or 'natural justice.' It exists in domestic law, both in civil law and in common law systems, and in international law. The tradition of equity begins in antiquity with the writings of Aristotle, epieikeia, and with Roman law, aequitas. Later, in civil law systems, equity was integrated into the legal rules, while in common law systems, it became an independent body of law.

Justice: Justice, in its broadest sense, is the principle that people receive that which they deserve, with the interpretation of what then constitutes "deserving" being impacted upon by numerous fields, with many different viewpoints and perspectives, including the concepts of moral correctness based on ethics, rationality, law, religion, equity and fairness.

Security: Security is freedom from, or resilience against, potential harm (or other unwanted coercive change) caused by others. Beneficiaries (technical referents) of security may be persons and social groups, objects and institutions, ecosystems, or any other entity or phenomenon vulnerable to unwanted change.

Social Equality: Social equality is a state of affairs in which all individuals within a specific society have equal rights, liberties, and status, possibly including civil rights, freedom of expression, autonomy, and equal access to certain public goods and social services. Social equality requires the absence of legally enforced social class or caste boundaries and the absence of discrimination motivated by an inalienable part of an individual's identity. For example, advocates of social equality believe inequality before the law for all individuals regardless of sex, gender, ethnicity, age, sexual orientation, origin, caste or class, income or property, language, religion, convictions, opinions, health, disability, or species. Social equality is related to equal opportunity.

Chapter 5
Energy Market in the Post-COVID-19 World:
Structural Analysis of Critical Factors for China

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ABSTRACT

The objective of this chapter was to structurally model the high priority factors in the face of the impact of severe acute respiratory syndrome COVID-19 on the energy market. The method was based on interpretive structural modeling, and the matrix of crossed impacts multiplication was applied to classification. A model of 12 factors structured hierarchically in six levels is proposed in which consumption preferences, regulatory and normative modifications, political restrictions, and planning strategies have the greatest influence on the energy market from the perspective of China. As a result of this, it is suggested to move towards greater participation of public and private actors in renewable energy vectors.

INTRODUCTION

Wuhan (China) was the epicenter of the virus identified as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the associated infectious disease 2019 (novel coronavirus, COVID-19). The first case was reported on 31 December 2019. On 11 March 2020, the rapid spread of the virus in 114 countries led the World Health Organization (WHO, 2020) to declare it a pandemic and the vulnerabilities of health systems and national economies. Given this, the energy market was no exception, and the persistence of universal non-pharmacological interventions (NPIs), such as voluntary home isolation of people, in addition to low economic activity, triggered a drop in demand. Energy mix, especially some of the most commercialized hydrocarbon-based products, and interruptions in the energy supply chain (International Finance Corporation, 2020). This led to an operational paralysis of different industrial

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sectors (European Parliament, 2020), and the high dependence that society still has on this type of fuel to function was evidenced (BP, 2020).

Even when pre-COVID-19 oil and gas prices approached record lows due to the economic slowdown in China and record gas production in the United States (BP, 2020), slower growth in demand triggered by COVID-19 is likely to keep oil prices low, although volatility and financial stress in the market can be expected on the way to economic recovery, at least to pre-pandemic levels. However, this sector presents a different reality for each country, particular characteristics that nevertheless maintain inseparable links with changes that have occurred at the international level (Gillingham, Knittel, Li, Ovaere and Reguant, 2020); although it is not possible to know the temporality and all the effects produced by the pandemic in the energy sector.

To think that the impact of SARS-CoV-2 is temporary and that the world will continue inertially with its development is, to say the least, a simplistic view. Countries and their societies will be very different, and energy is one of the cornerstones that will determine the speed, depth, and scope of that transition. In some perspectives, it is argued that the COVID-19 pandemic has marked the end of the era of coal and fossil fuels, to give way to the formulation of public policies aimed at accelerating the process of decarbonization of the energy market and promoting the growth of green energy (Kuzemko et al., 2020). Still, the energy market's future is far from certain, and the impacts of this disruption will imply processes of deep reflection and debate regarding the decisions that must be considered globally as part of international commitments.

In the specialized literature, models for making decisions in situations of high complexity and uncertainty have been documented in various fields of knowledge, among which are those of structured analysis, namely, interpretive structural modeling (ISM) and the matrix of crossed impacts-multiplication applied to a classification (MICMAC) (Keenan and Popper, 2008; Popper, 2009; Popper and Teichler, 2011). Based on the preceding, the research question is: What are the high priority factors based on SARS-CoV-2 and their interrelation in the energy market's future? To respond to this, the objective of the research was to structurally model the priority factors for the future of the energy market. The document was structured in five parts. After the introduction, the theoretical framework on the ISM and MICMAC is included from the perspective of the energy market; the third section describes the research method; in the fourth, the ISM and the strategies that will be considered by the actors involved in the energy market are proposed; and, finally, the last section presents the conclusions.

BACKGROUND

The global crisis linked to SARS-CoV-2 has strongly affected the global energy market and the sectors that, by their nature, are highly interconnected with it (European Parliament, 2020); however, this sector has constantly faced catastrophic uncertainties that are difficult to predict and control (Alizadeh, Lund, Beynaghi, Abolghasemi and Maknoon, 2016; Kruyt, van Vuuren, de Vries, and Groenenberg, 2009), linked to markets, technologies and societies, and they have caused major socio-technical changes or transitions (Filipović, Radovanović and Golušin, 2018; Radovanović, Filipović and Pavlović, 2017). Besides, due to the dependence on energy considered essential for the functioning of any economy, there is a continuous interest of developed and developing countries for an uninterrupted supply, which has transcended geopolitical considerations (Gasser, 2020). From the energy security point of view, various indices and methodologies have been proposed that measure the capacity to face sudden changes in the supply-demand balance in the short, medium, and long term. However, most of these indicators show only the result of the operations. They do not consider the implications of other potential threats (Kisel, Hamburg, Härm, Leppiman, and Ots, 2016) of the indirect effects without anticipation would be almost impossible to value. For this, various organizations have used prospective structured analysis methods to explore the likely consequences of taking, or not taking, a course of action (Peterson, Cumming & Carpenter, 2003; Walker, Haasnoot & Kwakkel, 2013). For some cases, such as the energy market, these decisions imply great effects on developing and implementing a country's energy policy and alter the structure of its social, technological, political, and economic system (Valdés, 2018). Among these methods are the ISM and MICMAC, which, unlike the Delphi method or the modeling of structural equations, require a smaller number of experts (Yadav and Barve, 2015) and have become an analytical framework to understand the direct or indirect relationships between the factors that influence a system under highly complex disruptive situations (Godet, Durance and Gerber, 2013; Ramesh, Banwet and Shankar, 2010).

Although it is the nature of indirect relationships and their potential to influence the structures of the system that is the basis for the ISM analysis (Saxena, Sushil, and Vrat, 1992), the core of the methodology is found in the conceptual application of the theory of graphs (del Pilar, Allegado and Bongo, 2019; Sagheer, Yadav and Deshmukh, 2009). On the other hand, the MICMAC stratifies, utilizing matrix algebra (Diabat and Govindan, 2011; Kannan, Pokharel and Kumar, 2009), the factors according to their driving force (power of influence) and their power of dependence (Luthra, Kumar, Kharb, Ansari and Shimmi, 2014; Wang, Wang, and Zhao, 2008). While the driving force represents the degree of influence that one factor has on others; The power of dependence represents the influence that a factor receives from one or more driving or influencing factors (Chander, Jain, and Shankar, 2013). These factors are classified into independent, liaison, autonomous, and dependent (Agrawal, 2019; Arcade, Godet, Meunier, and Roubelat, 2004).

Consequently, in the specialized literature, there are studies on the ISM-MICMAC methodology in various areas of application, for example, in the cement and construction industry (Saxena et al., 1992; Xu and Zou, 2020), in information security management (Chander et al., 2013), in the banking sector (Shamshad, Sarim, Akhtar and Tabash, 2018), in supply chains (Dube and Gawande, 2016), in micro-businesses (from Pilar et al., 2019), among others. However, these studies are scarce and non-existent on the energy issue, only the study by Alizadeh et al. (2016) of strategic prospects for the Iranian energy industry using MICMAC. Derived from the above, this study aimed to structurally model a set of high-priority factors for the energy market's future under the ISM-MICMAC method based on SARS-CoV-2.

METHODS AND MATERIALS

The study was based on the ISM-MICMAC methodology to achieve the proposed objective, which implied considering recurring stages in this type of study (Dube and Gawande, 2016; Gan, Chang, Zuo, Wen, and Zillante, 2018; Xu and Zou, 2020).

Identification of the Critical Factors of the Energy Market

This phase involved, in addition to a theoretical review mainly focused on energy security issues, a purification of the factors found through the feedback of ten experts from China, active in the labor market and with more than five years of experience in the energy field: three from the private sector, two from the Ministry of Energy, two from the National Hydrocarbons Commission, two from the Energy Regulatory Commission and one from the Federal Legislature. The information was obtained from interviews in electronic format carried out in August 2020.

Identification of the Contextual Relationships of the Critical Factors

The adjacency matrix (MAd) was constructed from the identified critical energy market factors (FCME), which suggest the contextual relationship between the factors based on the opinion of experts. Contextual relationships in the MAd are described by the letters V, X, A, O. V means that FCME i leads to FCME j; A means that FCME j leads to FCME i; X means that FCME i and FCME j influence each other; Or means that FCME i and FCME j are not related. This identification of relationships was carried out through a virtual panel with seven of the ten experts: two from the private sector, two from the ministry of energy, one from the National Hydrocarbons Commission, another from the Energy Regulatory Commission, and one of the Federal Legislative. The panel was held on 13 August, 2020 (Movahedian et al., 2021; Norouzi et al., 2020a).

Development of the Transitivity Matrix

From the MAd, which shows the direct relationships between the FCME, the transitivity matrix (MTr) was constructed, which in addition to the direct relationships includes the indirect ones. To do this, two steps were followed: first, the initial transitivity matrix (MTri) was developed, and the letters V, A, X, O of the MAd were replaced with binary values 1 and 0 under the following rules (Gan et al ., 2018; Shen, Song, Wu, Liao and Zhang, 2016; Norouzi et al., 2020b):

- The letter V in cell (i, j) of the MAd indicates converting cell (i, j) to 1 and cell (i, j) to 0 in MTri
- The letter A in cell (i, j) of the MAd indicates converting cell (i, j) to 0 and cell (i, j) to 1 in MTri
- The letter X in cell (i, j) of the MAd indicates converting cell (i, j) to 1 and also cell (i, j) to 1 in MTri
- The letter O in cell (i, j) of the MAd indicates converting the cell (i, j) to 0 and the cell (i, j) also to 0 in the MTri

Second, the transitivity rule was applied to the MTri, which states that if an attribute α is related to β and β is related to γ, then α is necessarily related, albeit indirectly to γ. The transitivity of the matrix represented in a direct graph G = (V, E) can be obtained from the Floyd-Warshall algorithm (Katz and Kider, 2008) as shown in equation 1(Norouzi et al., 2021a):

$$w_{ij} = \begin{cases} 0 & for\ j = 1 \\ edge\,weight\left(i,j\right) & for\ i \neq j, y\left(i,j\right) \in E \\ \infty & for\ i \neq j, y\left(i,j\right) \notin E \end{cases} \tag{1}$$

A recursive definition of the previous formulation is given by the following equation 2:

$$d_{ij}^{K} = \begin{cases} w_{ij} & for\, k = 0 \\ \min\left(d_{ij}^{k-1}, d_{ik}^{k-1} + d_{kj}^{k-1}\right) & for\, k \geq 0 \end{cases} \tag{2}$$

Where d_{ij}^{K} are the weights of the short path from vertex i to vertex j for all intermediate vertices of the set {1,2,3,…, k}, where k = 0 implies $d_{ij}^{0} = w_{ij}$.

Partition of the Transitivity Matrix and ISM Model

It is an iterative process of ranking the TMr factors that are identified according to their accessibility, antecedent, and intersection; These factors are divided into levels according to their community or intersection between them and based on the factors that may influence or influence them (Luthra et al., 2014; Shen et al., 2016; Norouzi et al., 2021b).

Classification of FCME With MICMAC

The power of influence and dependence can be calculated by adding all the row or column values in the MTr. They are classified, according to Arcade et al. (2004), as independent (little dependency and strong influence), liaison (strong dependency and strong power of influence), autonomous (little influence and little dependency), and dependent (strong dependency and little power of influence)(Norouzi & Fani, 2020).

RESULTS

Identification of Critical Factors

In this phase, with the support of the STEEPVL multidimensional heuristic method (social, technological, economic, ecological, political, values , and legal), the potential factors that presumably affect the energy industry's future were identified and classified a theoretical review by SARS-CoV-2 (FCME). These factors are often a basis for prospective methods in scenario construction (Nazarko et al., 2017). Twenty-three factors were found; however, the panel of ten experts from the energy sector selected those of high priority, and through a discrimination procedure, which was based on statistical mode values, those above three were chosen on a Likert scale of five anchors (0 none critical to 5 highly critical). The resulting factors are shown in Table 1(Norouzi & Fani, 2021).

Identification of Contextual Relationships and Construction of the Adjacency Matrix

At this stage, contextual relationships were identified by peer-to-peer comparison of the 12 critical factors (FCME) and from the feedback of the seven experts from the energy sector. As a de facto rule of the ISM-MICMAC methodology, the use of the four letters V, A, X, and O was considered to construct the MAd (Table 2).

The direct effects relationships to a greater degree were found in f1 (decarbonization), f3 (private investment), and f5 (public spending on energy development) with other factors. In contrast, the relationships with the least direct effect were f4 (limits and market share), f9 (energy planning strategies), f10 (consumption preferences), f11 (technological innovation), and f12 (physical infrastructure) with other factors(Norouzi, 2020).

Development of the Transitivity Matrix

The MTri is obtained by replacing in the previous MAd the relationship letters V, A, X, and O by their respective binary values of 0 and 1 under the rules described. To obtain the final MTr (table 3), the Floyd-Warshall iterative algorithm was implemented, with the support of the Maple computational tool see 2020.1. The inputs indicated as one * represent the indirect relationships incorporated by transitivity.

One of the factors that resulted in more indirect relationships was f10 (consumption preferences), which was related to f1 (decarbonization), f2 (supervision of techniques), f3 (private investment), f5 (public spending on energy development), and f11 (technological innovation); in turn, factor f2 (supervision of techniques) was transitively linked with factors f1 (decarbonization), f3 (private investment), f6 (fiscal incentives and stimuli) and f11 (technological innovation)(Norouzi, 2021).

Hierarchical Structure: Partition of the Transitivity Matrix and ISM Model

In this stage, the developed MTr is iteratively partitioned according to the accessibility and antecedent of each factor and classified at a hierarchical level. According to the factors influenced by other factors, each factor is analyzed based on its accessibility, including itself (accessibility set) and the antecedent factors that influence other factors, including itself (antecedent set). The intersection set is the common factor included in the accessibility and background sets. If this set contains the same factors as the accessibility factors, it is ranked at the level that corresponds to it according to the iteration and is discarded from the rest of the iterations if necessary (table 4)(Norouzi & Ataei, 2021).

Six structural levels are distinguished; While at level 1, there are the limiting factors and market share (f4), fiscal incentives and incentives (f6), and physical infrastructure (f12), at level 6, there is the energy planning strategies factor (f9). This layered structure provides the foundation for the construction of the ISM model (Figure 1). The lower level suggests that these factors are affected by other factors in subsequent levels, while the higher levels indicate that these factors located at the bottom of the hierarchy can greatly influence the energy market's future. Factors at the intermediate levels indicate that they influence factors at the higher level but are also influenced by factors at the lower level.

Market (f4) and physical infrastructure (f12) are not related to any other factor in the structure, which indicates that they are independent. While the factors decarbonization (f1), supervision of techniques (f2), private investment (f3), and public spending on energy development (f5) of level 2 are interrelated with each other and, besides, with the factor of level 3 of technological innovation (f11). These factors transfer influence to level 1 and are influenced by level 4 and lower levels being at these intermediate levels. For their part, the factors of political constraints (f8) and technological innovation (f11) play an important role in the chain of influence as they are bridges from lower to higher levels. It is then that the presented ISM model describes the influence relationships of the factors in the system.

Table 1. Critical factors in the energy market perspective

Type	Factor (FCME)	Description	Reference
Environmental	F1- Decarbonisation	Decarbonization implies the reduction in the use of fossil fuels, a balance in the emissions balance, the supply of green energy, and the fulfillment of the commitments made in the Paris Agreement.	Foundational Economy Collective (2020); Gössling and Higham (2020).
	F2- Techniques supervision	The methods and techniques used in the industry can cause important effects on the environment; thus, sustainable and efficient use is required to reduce damage to the environment.	Jackson et al. (2014).
Economic	F3- Private investment	Fossil fuel-based projects have been heavily invested, funded, and high-carbon portfolios have been created that now represent a “value at risk.” To have credible portfolios in the future and prevent financial system instability, investors and lenders must facilitate the transition to growing markets with low carbon emissions.	Johnson et al. (2015); Campiglio (2016); Polzin (2017); Campiglio et al. (2018).
	F4- Limits and market share	Some restrictions and limits are defined through agreements, negotiations, and regulations that establish the framework of action for private and public actors in the energy sector.	Carbonara and Pellegrino (2018).
	F5- Public spending on energy development	Public spending to moderate COVID-19 and investment in projects in the sector will affect energy recovery and future energy.	Mundaca (2017).
	F6- Tax incentives and incentives	Governments have tools such as fiscal stimulus and other types of incentives to accelerate recovery.	Yoshino and Taghizadeh-Hesary (2018).
Legal	F7- Regulatory changes and transition regulations	The legal framework plays a preponderant role since it establishes norms that support various criteria and rules of the game for the sector.	Banovac, Glavić and Tešnjak (2009).
Political	F8- Political restrictions	The political context influences the international and local dynamics of the energy sector; political restrictions are key elements that must be considered when analyzing the sector.	Cowell and Devine-Wright (2018).
	F9-Energy planning strategies	The decisions that nations and their leaders make regarding the guidelines and lines of action to be followed are essential to understanding energy present and future.	Debnath and Mourshed (2018); Moret, Babonneau, Bierlaire and Maréchal (2020).
Social	F10- Consumption preferences	The use of energy also depends on its value and availability on users’ consumption patterns and preferences.	Heiskanen, Johnson, Robinson, Vadovics and Saastamoinen (2010).
Technologic	F11- Technological innovation	The energy sector is highly sensitive to technological changes and innovation.	Sagar and Van der Zwaan (2006); Herring y Roy (2007).
	F12-physical infrastructure	The use of energy resources depends greatly on the capacity and technical infrastructure available for transformation and use.	Bridge, Özkaynak, and Turhan (2018).

Table 2. Adjacency matrix

FCME		f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	f11	f12
Decarbonization	f1	1/1	V	0/0	0/0	A	0/0	A	0/0	A	0	A	0/0
Techniques supervision	f2		1/1	0/0	0/0	V	0/0	0/0	0/0	A	0	0/0	0/0
Private investment	f3			1/1	0/0	X	0/0	A	A	0/0	0/0	0/0	0/0
Limits and market share	f4				1/1	0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
Public spending on energy development	f5					1/1	0/0	A	A	0/0	0/0	V	0/0
Tax incentives and incentives	f6						1/1	0/0	0/0	A	0/0	A	0/0
Regulatory and normative modifications	f7							1/1	V	A	0/0	0/0	0/0
Political restrictions	f8								1/1	0/0	A	0/0	0/0
Energy planning strategies	f9									1/1	0/0	0/0	0/0
Consumption preferences	f10										1/1	0/0	0/0
Technological innovation	f11											1/1	0/0
Physical infrastructure	f12												1/1

V: FCME i leads to CFF j; A: FCME j conducts CFF i; and X: FCME i and FCME j influence each other; and O: FCME i and FCME j are not related.

Table 3. Final transitivity matrix

FCME		f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	f11	f12	Pin
Decarbonization	f1	1/1	1/1	1*	0/0	1*	1*	0/0	0/0	0/0	0/0	1*	0/0	6
Techniques supervision	f2	1*	1/1	1*	0/0	1/1	1*	0/0	0/0	0/0	0/0	1*	0/0	6
Private investment	f3	1*	1*	1/1	0/0	1/1	1*	0/0	0/0	0/0	0/0	1*	0/0	6
Limits and market share	f4	0/0	0/0	0/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0	0/0	1
Public spending on energy development	f5	1/1	1*	1/1	0/0	1/1	1*	0/0	0/0	0/0	0/0	1/1	0/0	6
Tax incentives and incentives	f6	0/0	0/0	0/0	0/0	0/0	1/1	0/0	0/0	0/0	0/0	0	0/0	1
Regulatory and normative modifications	f7	1/1	1*	1/1	0/0	1/1	1*	1/1	1/1	0/0	0/0	1*	0/0	8
Political restrictions	f8	1*	1*	1/1	0/0	1/1	1*	0	1/1	0/0	0/0	1*	0/0	7
Energy planning strategies	f9	1/1	1/1	1*	0/0	1*	1/1	1/1	1*	1/1	0/0	1*	0/0	9
Consumption preferences	f10	1*	1*	1*	0/0	1*	1*	0	1/1	0/0	1/1	1*	0/0	8
Technological innovation	f11	1/1	1*	1*	0/0	1*	1/1	0/0	0/0	0/0	0/0	1/1	0/0	6
Physical infrastructure	f12	0/0	0/0	0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/1	1
Pde	9	9	9	1	9	10	2	4	1	1	9	1	65	

Pin: Power of influence and Pde: Power of dependence.

Table 4. Hierarchical structure

FCME	Accessibility Set	Antecedent Set	Intersection Set	Level
f1	f1,f2,f3,f5,f6,f11	f1,f2,f3,f5,f7,f8,f9, f10,f11	f1,f2,f3,f5,f11	2
f2	f1,f2,f3,f5,f6,f11	f1,f2,f3,f5,f7,f8,f9, f10,f11	f1,f2,f3,f5,f11	2
f3	f1,f2,f3,f5,f6,f11	f1,f2,f3,f5,f7,f8,f9, f10,f11	f1,f2,f3,f5,f11	2
f4	f4	f4	f4	1
f5	f1,f2,f3,f5,f6,f11	f1,f2,f3,f5,f7,f8,f9, f10,f11	f1,f2,f3,f5,f11	2
f6	f6	f1,f2,f3,f5,f6,f7,f8, f9,f10,f11	f6	1
f7	f1,f2,f3,f5,f6,f7, f8,f11	f7,f9	f7	5
f8	f1,f2,f3,f5,f6,f8,f11	f7,f8,f9,f10	f8	4
f9	f1,f2,f3,f5,f6,f7,f8, f9,f11	f9	f9	6
f10	f1,f2,f3,f5,f6,f8, f10,f11	f10	f10	5
f11	f1,f2,f3,f5,f6,f11	f1,f2,f3,f5,f7,f8,f9, f10,1f1	f1,f2,f3,f5	3
f12	f12	f12	f12	1

MICMAC Classification

Considering the power of influence and dependence obtained in the final MTr (table 4), the 12 FCME were classified as an autonomous, dependent, liaison, and independent (figure 2). Four of the factors —regulatory and normative modifications (f7), political restrictions (f8), energy planning strategies (f9), and consumption preferences (f10) - are independent with high power of influence and low power of dependence; These are the factors to which more attention should be paid, particularly to the energy planning strategies factor (f9), since it is also found in level 6 of the ISM model. For their part, the limiting factors of market participation (f4) and physical infrastructure (f12) are autonomous, so they have low power of influence and low power of dependence; These factors, having few links with the system, are not easy for them to affect or be influenced by other factors in the energy market. Five factors - decarbonization (f1), supervision of techniques (f2), private investment (f3), public spending on energy development (f5), and technological innovation (f11) - are linked, so they have a high power of influence, and high power of dependence, any action on these factors will have a reaction effect on the other factors and themselves.

Finally, the factor incentives and fiscal stimuli (f6) are classified as dependent since they have low power of influence and high dependence power. This factor is influenced by the linking factors (f1, f2, f3, f5, and f11) and the independent ones (f7, f8, f9, f10), so it is less likely to affect other factors. Therefore, any strategy designed for the independent or linking factors will consequently influence the dependent factors. In this sense, the MICMAC results complement the ISM structural model and guide the strategies that should be considered and implemented (Table 5)(Behzadi Forough et al., 2021).

Figure 1. ISM model based on energy market factors.

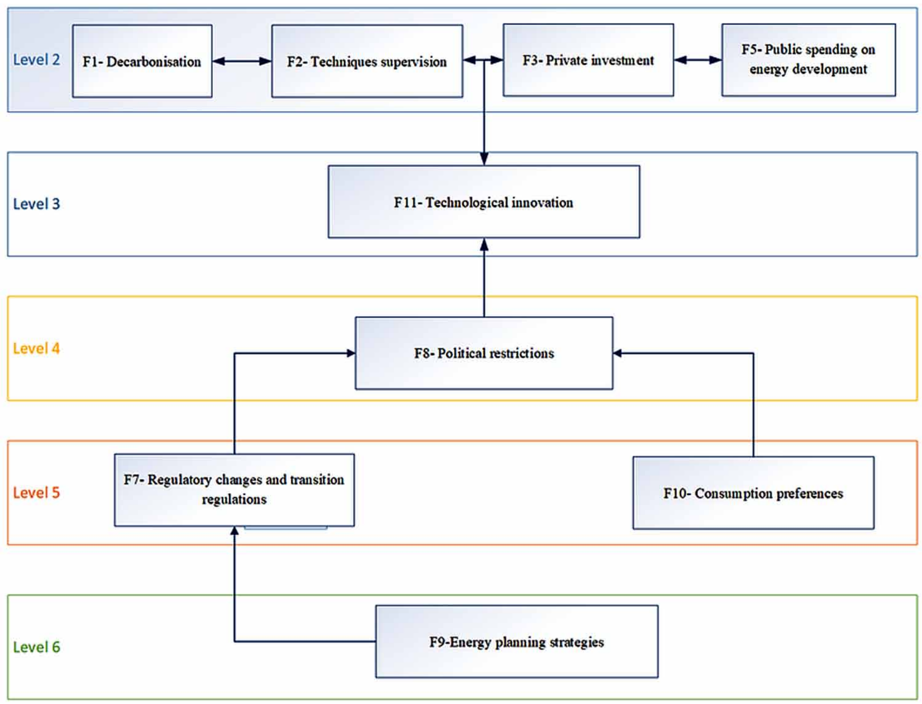

Figure 2. MicMac table for Stratified factors in power of influence/dependence

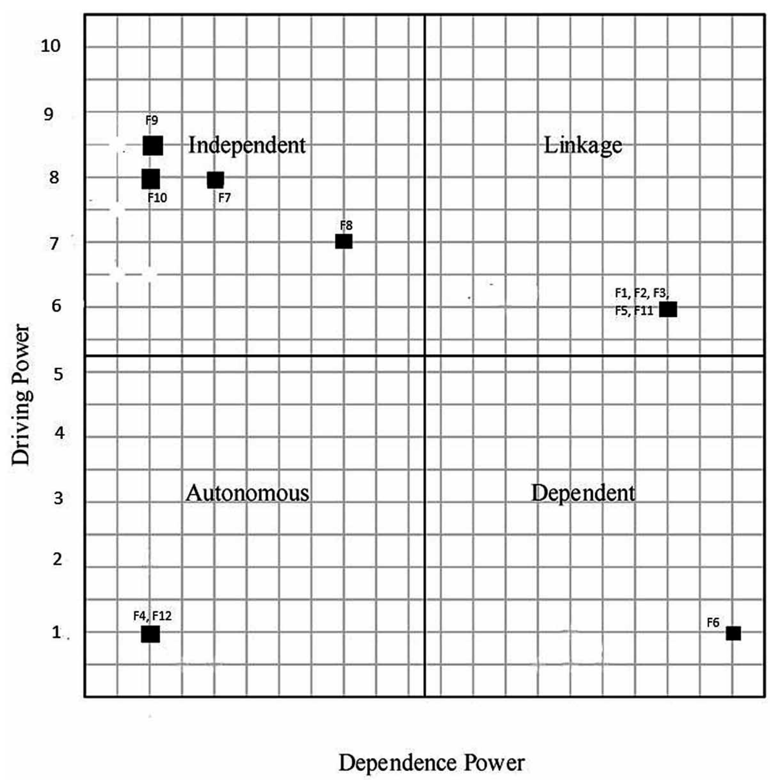

Table 5. Strategies in the management of the energy market

Critical Energy Market Factors	Strategies
Driving Regulatory and normative modifications (f7), restrictions policies (f8), energy planning strategies (f9) and consumption preferences (f10)	• Support the development of the energy market and increase the participation of public and private actors • Promotion of the development of renewable energy • Improve competitiveness in power generation • Exchange of input-output between energy-producing and distributing companies based on regional values of vectors of energía
Linkage Decarbonization (f1), supervision of techniques (f2), private investment (f3), public spending on energy development and technological innovation (f11)	• Balancing the balance of polluting emissions and formulating actions to comply with the Paris agreements • Increase in the control of public spending to reorient and strengthen the industry with solid analysis and reporting findings • Boost scientific and technological support for the intensive use of lithium, green hydrogen • Promote the use of sustainable techniques that have a lower impact on the environment
Dependents Tax incentives and incentives (f6)	• Implement fiscal incentives for renewable energy investors • Reduce the tax burden on those industries or companies that demonstrate a reduction in pollutants • Financial and technical support from the government of energy consumption optimization projects
Self-employed Limits to market share (f4) and physical infrastructure (f12)	• Establish clear boundaries between the participation of private and public actors • Form strategic alliances with other countries to guarantee energy supply • Improve energy security and greater government oversight • Adopt international best practices for the benefit of the sector

DISCUSSION AND CONCLUSION

From the economic and health crisis triggered by the SARS-CoV-2, the energy market experienced variations in its operation that have impacted the sectors that are highly interconnected and at the same time has put the transformation back on the public and private agenda eventual sector towards the generation and consumption of more sustainable energies. However, the full impact of the pandemic on the energy market is far from being determined. In the ISM analysis of the research, 12 factors structured hierarchically in six levels were identified. In contrast, when applying the MICMAC analysis, four independent factors were identified - regulatory and normative modifications (f7), political restrictions (f8), energy planning strategies (f9) and consumption preferences (f10) -, which due to their high power of influence are fundamental and of high priority to understand the prospects of the energy market. Due to its high hierarchical level, the main one turned out to be energy planning strategies (f9), a factor in which the transition from a free market and privatizing economic policy to energy sovereignty with strengthening the State's productive companies can be rethought., or, considerations towards internal factors such as energy demand, availability of resources, characteristics and requirements of the industry, use of renewable energies, population growth and consumption preferences, or towards external factors such as global trends, agreements and pacts international standards that will limit the use of any fuel, the levels of environmental pollution, the requirements of the nations that concentrate the greatest demand, and the value and market price of energy.

Similarly, political restrictions (f8) are another key factor in the energy market, which can be derived from the decisions and interests of each country against the international agenda or the emergence of possible conflicts between them. While the consumption preferences (f10) associated with the needs of a certain energy source also influence the fluctuations and volatility of the market. Regulatory and normative modifications (f7) require special attention, for example, the entry into force in January 2020 of the limits on the use of fuel oil with high sulfur content, especially for maritime transport. The factors identified, although dynamics are inferred in terms of their structural level for local markets, as it has been for China, tend to be recurrent on security from the perspective of the global energy market. However, for the SARS-CoV-2 health crisis, the government and private sectors should be considered special emphasis for strategic planning and definition of public policies for the sector's development. Finally, the limitation of this research should be noted in terms of the vision of experts from a single region, so it is necessary to include the selection of experts on an international scale in future works.

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KEY TERMS AND DEFINITIONS

COVID-19: Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people who fall sick with COVID-19 will experience mild to moderate symptoms and recover without special treatment. The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air and quickly fall on floors or surfaces. You can be infected by breathing in the virus if you are within proximity of someone who has COVID-19 or by touching a contaminated surface and then your eyes, nose, or mouth.

COVID-19 and Economics: The outbreak is a major destabilizing threat to the global economy. One estimate from an expert at Washington University in St. Louis gave a $300+ billion impact on the world's supply chain that could last up to two years. Global stock markets fell on 24 February due to a significant rise in COVID-19 cases outside China. On 27 February, due to mounting worries about the COVID-19 outbreak, US stock indexes posted their sharpest falls since 2008, with the Dow falling 1,191 points (the largest one-day drop since the financial crisis of 2007–08) and all three major indexes ending the week down more than 10 per cent. On 28 February, Scope Ratings GmbH affirmed China's sovereign credit rating but maintained a Negative Outlook. Stocks plunged again due to coronavirus fears, the largest fall being on 16 March.

COVID-19 and Environment: The worldwide disruption caused by the pandemic has resulted in numerous positive effects on the environment and climate. The global reduction in modern human activity, such as the considerable decline in planned travel, was coined andropause and has caused a large drop in air pollution and water pollution in many regions. In China, lockdowns and other measures resulted in a 25 percent reduction in carbon emissions and a 50 percent reduction in nitrogen oxides emissions, which one Earth systems scientist estimated may have saved at least 77,000 lives over two months. Other positive effects on the environment include governance-system-controlled investments towards a sustainable energy transition and other goals related to environmental protection, such as the European Union's seven-year €1 trillion budget proposal and €750 billion recovery plan "Next Generation EU" which seeks to reserve 25% of EU spending for climate-friendly expenditure. However, the pandemic has also covered illegal activities such as deforestation of the Amazon rainforest and increased poaching in Africa. The hindering of environmental diplomacy efforts combined with late capitalism also created economic fallout that some predict will slow investment in green energy technologies.

COVID-19 and Lifestyle: The pandemic has resulted in many people adapting to massive changes in life, from increased internet commerce to the job market. Social distancing has caused increased sales from large e-commerce companies such as Amazon, Alibaba, and Coupang. Online retailers in the US posted 791.70 billion dollars in sales in 2020, increasing 32.4% from 598.02 billion dollars from the year before. The trend of home delivery orders has increased due to the pandemic, with indoor dining restaurants shutting down due to lockdown orders or low sales. Hackers and cybercriminals/scammers have started targeting people due to the massive changes, with some pretending to be part of the CDC and others using different phishing schemes. Education worldwide has increasingly shifted from physical attendance to video conferencing apps such as Zoom as lockdown measures have resulted in schools being forced to shut down. Due to the pandemic, mass layoffs have occurred in the airline, travel, hospitality, and some other industries. (There were no signs of permanent recovery as of May 2021).

Decision Analysis (DA): Is the discipline comprising the philosophy, methodology, and professional practice necessary to address important decisions formally. Decision analysis includes many procedures, methods, and tools for identifying, clearly representing, and formally assessing important aspects of a decision; for prescribing a recommended course of action by applying the maximum expected-utility axiom to a well-formed representation of the decision; and for translating the formal representation of a decision and its corresponding recommendation into insight for the decision-maker, and other corporate and non-corporate stakeholders.

Market Research: Market research is an organized effort to gather information about target markets and customers: know about them, starting with who they are. It is a very important component of business strategy and a major factor in maintaining competitiveness. Market research helps to identify and analyze the needs of the market, the market size, and the competition. Its techniques encompass both qualitative techniques such as focus groups, in-depth interviews, ethnography, quantitative techniques such as customer surveys, and analysis of secondary data.

Multiple-Criteria Decision Making (MCDM): Multiple-criteria decision analysis (MCDA) is a sub-discipline of operations research that explicitly evaluates multiple conflicting criteria in decision making (both in daily life and in settings such as business, government, and medicine). Conflicting criteria are typical in evaluating options: cost or price is usually one of the main criteria, and some measure of quality is typically another criterion, easily in conflict with the cost. In purchasing a car, cost, comfort, safety, and fuel economy maybe some of the main criteria we consider – unusually, the cheapest car is the most comfortable and the safest one. In portfolio management, managers are interested in getting high returns while simultaneously reducing risks; however, the stocks that can bring high returns typically carry a high risk of losing money. In a service industry, customer satisfaction and the cost of providing service are fundamental conflicting criteria.

Chapter 6

Environmental, Social, and Corporate Governance by Avoiding Management Bias and Tax Minimization:

Reaching a General Consensus Regarding a Minimum Global Tax Rate

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ABSTRACT

The COVID-19 pandemic shock made nations worldwide seek support in different forms of international cooperation, realizing that strength is derived from countries' capacities to unite their forces and act together in times of crisis. Faced with the perspective of the COVID-19 crisis consequences, states have to adapt, focusing on implementation of robust managerial strategies and concentrating attention on ensuring strong financial systems. Given that, on the one hand, in the attempt to provide a healthy life and sustainable development, a balance needs to be established in terms of environmental, social, and corporate governance; and, on the other hand, in the quest to guarantee fair and transparent tax systems, a minimum global tax rate should be implemented. Likewise, in the new economy, the knowledge-based economy, the digitalized economy, business organizations should act in the spirit of sustainability while centering their efforts on efficiency, productivity, profitability, and performance and benefiting from the impressive advantages provided by intangible assets.

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INTRODUCTION

Nowadays, international businesses have "experienced far-reaching structural change" due to organizations' continuously growing interest to develop and become globally active and worldwide known (Organization for Economic Co-operation and Development (OECD), 2011, p. 13). In continuations, all the documents that are focused on the changes, challenges, development and transformations that are taking place in this complex international business environment "have evolved to reflect these changes", thus empowering the countries to face the novel context and to cope with the international requirements, facilitating in this matter aligning the countries' national laws to the international commitments (Organization for Economic Co-operation and Development (OECD), 2011, p. 13). Also, these days the focus is on the new economy, the globalized economy, which has to master successfully "the rise of service and knowledge-intensive industries and the expansion of the Internet economy" and in which "service and technology enterprises are playing an increasingly important role in the international marketplace" (Organization for Economic Co-operation and Development (OECD), 2011, p. 13).
These elements are highlighted below (see Figure 1).

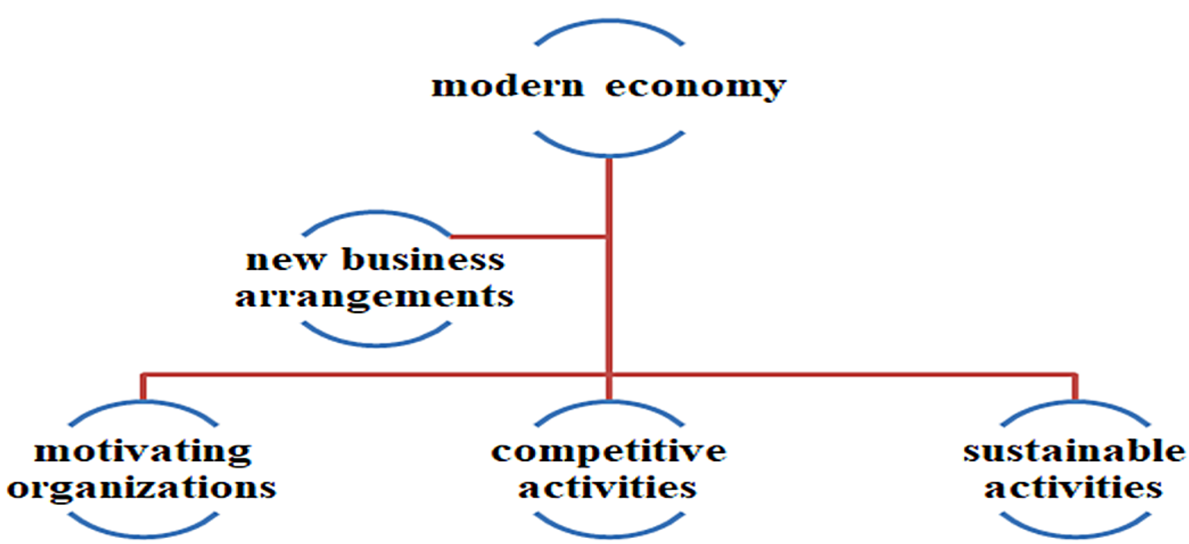
Figure 1. Diversity perspectives for international businesses and structural-change to accommodate international commitments
Source: the author

What is more, this modern economy has to deal with new business arrangements, focusing on determining and motivating organizations to be part of more competitive and more sustainable activities (Popescu *et al.*, 2015). The new economy is centered on the crucial role played by intangible assets (IA), such as, for instance, intellectual capital (IC), human capital (HC), human resources (HR), and human resources management (HRM), which play an important role in enhancing innovation and inspiring change and modernization (Popescu *et al.*, 2008; Popescu *et al.*, 2012; Popescu *et al.*, 2016; European Union (EU), 2021b). According the specialists, the role of IC is vital in the new economy and, based on recent studies, it has the power to make the difference between successful or unsuccessful activities and businesses, since IC represents one of the most precious assets that entities possess these days (Popescu, 2018; Popescu, 2019a; Popescu, 2019b; Popescu, 2019c; Popescu, 2019d; Popescu, 2019e; Popescu, 2019f). Also, the role of quality management is highly praised at the level of the organizations, and based on specialists' researches in eatables sustainable development (SD) behavior as well as Corporate Social Responsibility (CSR) and Responsible Business Conduct (RBC) (Popescu, 2017).

Furthermore, responsible and sustainable entrepreneurship has become extremely valuable for all organizations worldwide and has become more and more keen on addressing major issues such as Corporate Social Responsibility (CSR) and Responsible Business Conduct (RBC) (Popescu & Popescu, 2015; Popescu *et al.*, 2015; Popescu *et al.*, 2017c; Popescu *et al.*, 2017d; Popescu, 2019g). For instance, in this regard could be mentioned the Organization for Economic Co-operation and Development (OECD) document entitled "OECD Guidelines for Multinational Enterprises", which provides "voluntary principles and standards for responsible business conduct consistent with applicable laws and internationally recognized standards" and which should be implemented by the adhering countries together with the aspects presented in the "Decision of the OECD Council on the OECD Guidelines for Multinational Enterprises" (Organization for Economic Co-operation and Development (OECD), 2011, p. 13; Organization for Economic Co-operation and Development (OECD), 2021l).

These elements are highlighted below (see Figure 2).

Figure 2. New and modern economy, in the light of sustainability and sustainable actions
Source: the author



Nevertheless, the European Commission (EC) published on the 6th of December 2012 a document entitled "Communication from the Commission to the European Parliament and the Council. An Action Plan to strengthen the fight against tax fraud and tax evasion. COM(2012) 722 final" in which "the added value" of all Member States "working together against the increasing challenge posed by tax fraud and evasion" has been stressed (European Commission (EC), 2012a, p. 2). Also, the same document mentioned the need of creating "an action plan setting out concrete steps to enhance administrative cooperation and to support the development of the existing good governance policy, the wider issues of interaction with tax havens and of tackling aggressive tax planning and other aspects, including tax-related crimes" (European Commission (EC), 2012a, p. 2). In this manner, the EC demonstrated the fact that it was mindful of all Member States need to reach a general consensus regarding a minimum global tax rate (MGTR), thus acting in the spirit of corporate social responsibility (CSR) and responsible business conduct (RBC), and supporting the idea of strengthening the process of tax collection (European Commission (EC), 2012a, p. 2).

The efforts of international institutions and organisms in terms of enabling the fight against tax fraud and tax evasion are crucial, in this matter being able to mention the following vital documents:

- The document entitled "Communication from the Commission to the European Parliament and the Council on concrete ways to reinforce the fight against tax fraud and tax evasion including in relation to third countries" published by the EC on the 27th of June 2012 emphasizes the fact that, based on EU statistics, the Member States are facing serious problems in raising revenues and in carrying out their economic policy due to tax fraud and tax evasion (European Commission (EC), 2012b). The same document highlights the fact that, "in times of fiscal consolidation, when many Member States need to cut expenditure and increase revenues, the conduct of fiscal policy is made even more difficult by tax fraud and evasion" (European Commission (EC), 2012b, p. 2).
- Additionally, it should be brought into discussion the fact that according to the document entitled "Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Stepping up the fight against undeclared work" published by Commission of the European Communities on the 24th of October 2007, mentions undeclared work as another source of tax fraud and tax evasion which threatens the EU tax revenues as well as the fair treatment that should apply to all the EU taxpayers (Commission of the European Communities, 2017).
- The "Council Directive 2010/24/EU of 16 March 2010 concerning mutual assistance for the recovery of claims relating to taxes, duties and other measures" makes reference to special legislative procedures that enable all Member States to offer mutual assistance "for the recovery of each other's claims and those of the Union with respect to certain taxes and other measures contributes to the proper functioning of the internal market", acting, in the same time, in the spirit of fiscal neutrality which has led to the removal of the "discriminatory protective measures in cross-border transactions designed to prevent fraud and budgetary losses" (Council of the European Union (CEU), 2010, p. 1).
- The European Commission (EC) document published on the 25th of October 2011 entitled "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A renewed EU strategy 2011-14 for Corporate Social Responsibility (COM/2011/0681 final)" accentuates the role of CSR and points out the fact that "corporate social responsibility concerns actions by companies

over and above their legal obligations towards society and the environment" and, in the same time, mentions the fact that "certain regulatory measures create an environment more conducive to enterprises voluntarily meeting their social responsibility" (European Commission (EC), 2011, p. 3). In the same section the notion of governance performance (GP) is brought into discussion and the five dimensions of EGA are analyzed.

Also, these days our society is confronting itself with significant threats and has to overcome major challenges in order to better promote SD and growth (see Table 1. Meaningful challenges threatening environmental, social and corporate governance, leading to critical situations (management bias and tax minimization)).

Table 1. Meaningful challenges threatening environmental, social and corporate governance, leading to critical situations (management bias and tax minimization)

	Significant Threats and Extensive Challenges for the Environmental, Social and Corporate Governance
Problem no. 1:	• The shadow economy in the EU is a major problem that leads to management bias and tax minimization (European Commission (EC), 2012b, p. 2).
	• The document entitled "Communication from the Commission to the European Parliament and the Council on concrete ways to reinforce the fight against tax fraud and tax evasion including in relation to third countries" published by the EC on the 27th of June 2012 the extend of the shadow economy in the EU in 2011 was reported as representing "nearly one fifth of GDP" (European Commission (EC), 2012b, p. 2).
Problem no. 2:	• Although, in general lines, "the vast majority of EU taxpayers generally seek to comply with their tax obligations", the Member States tax revenues are considerably reduced due to the highly disturbing fact that "tens of billions of euro remain offshore, often unreported and untaxed" (European Commission (EC), 2012b, p. 3).
	• Thus, the nations are confronting themselves with problems arising from tax fraud and tax evasion, such as: reduced tax revenues and lack of fairness in international reporting and international transactions (European Commission (EC), 2012b, p. 3).
Problem no. 3:	• The EU focus on fraud and evasion tackles the problem of revenues losses that arises also from undeclared work, since it is also an extensive problem that may often be encountered "in conjunction with the evasion of indirect taxes" (European Commission (EC), 2012b, p. 3; Commission of the European Communities, 2017; International Labour Organization (ILO), 2017).
	• The Commission of the European Communities mentioned in the "Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Stepping up the fight against undeclared work" published on the 24th of October 2007 the fact that "undeclared work tends to obstruct growth-oriented economic, budgetary and social policies" (Commission of the European Communities, 2017, p. 2).
Problem no. 4:	• The financial interests of the Member States of the EU as well as the neutrality of EU internal market are at risk in those cases in which the EU Member States are not able to offer themselves support and "mutual assistance e for recovery to claims relating to taxes and duties", which highlights the problem of often unclear rules which are in some cases unable to promote "a wider information exchange between Member States" (Council of the European Union (CEU), 2010, p. 1).
	• The issues derived from the sustainability assessment may be mentioned in this case as well as the lack of coherent measures and instruments, and robust frameworks (Popescu & Popescu, 2019b; Popescu *et al.*, 2017a; Popescu *et al.*, 2017b; Popescu, 2020a).
	• Also, in the same context, it should be highlighted the need "to ensure that neither disparities between national laws nor lack of coordination between competent authorities jeopardize the seamless operation of the mutual assistance system" (Council of the European Union (CEU), 2010, p. 2).
Problem no. 5:	• Being concerned about human beings lives and the environment health represent significant aspects due to be taken into consideration by organizations. CSR plays a vital role in the day-to-day lives of entities, since voluntary commitment towards actions referring to social responsibility, social inclusion, social development, economic development, and SD are regarded as "best practices for lifelong learning" and working organizations since "equal opportunities" are successfully promoted in this manner (Commission of the European Communities, 2001, p. 3).
	• In other words, the Commission of the European Communities names the following problems associated with the need for CSR and RBC: social exclusion, the concurrent "interests of various stakeholders in an overall approach of quality and sustainability", the challenges that appear in response to the management of change, the aspects that are occurring while trying to ensure "economic and social cohesion and health protection, and more generally on a global level, concerning environmental protection and respect of fundamental rights" (Commission of the European Communities, 2001, p. 3).

Source: the author, based on the sources cited above

Given the current context, it should be pointed out that this current research suggestively titled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" represents the continuation of the already approved and accepted for publication (on the 28th of August 2021) book chapter on "Fiscally responsible businesses as a result of Covid-19 pandemic shock: taking control of countries' tax systems by putting an end to corporate tax evasion and tax havens", having as authors Popescu and Duháček-Šebestová, due to be soon published in the IGI Global book entitled "Changing Dynamics in Responsible and Sustainable Business in the Post-COVID-19 Era" (Popescu & Duháček-Šebestová, 2022).

This book chapter entitled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" has the following structure:

1. First of all, the introduction is focused on illustrating the motivation for this current research, making reference to the general background and displaying some major problems with which our society and our economy are currently confronting themselves in times of Covid-19 pandemic and Covid-19 crisis. Also, in the introduction the main research question (MRQ) as well as the secondary research questions (SRQ) are highlighted. In addition, this section emphasizes the specific research objectives (SRO) which are derived from the MRQ and the SRQ.
2. Second of all, the next section is represented by the background, in which the general framework of this scientific work is created and in which the pivotal definitions for the book chapter are brought to the attention.
3. Third of all, the section entitled "Environmental, social and corporate governance" comprises three subsections which tackle, in turn, "Environmental governance" (EG), "Social governance" and "Corporate governance". Each subsection unfolds the definitions, characteristics, challenges and examples for the terms environmental governance (EG), social governance (SG) and corporate governance (CG).
4. Fourth of all, the next section of the study on "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" is represented by "Environmental governance assessment". This section exposes the most relevant definitions specific to environmental governance assessment (EGA), exhibits the instruments for measuring EG and shows the dimensions of EGA in the form mentioned by the EU (namely, transparency, public participation, access to justice, compliance assurance, effectiveness and efficiency).
5. Fifth of all, the section "Preventing management bias and discouraging tax minimization: finding temerarious solutions as a result of Covid-19 pandemic shock" focuses on understanding the implications of management bias and tax minimization, and centers on finding solutions capable to prevent management bias and discourage tax minimization.
6. Sixth of all, the next section "Novel challenges arising from economy's digitalization: reaching a general consensus regarding a minimum global tax rate" makes an in-depth analysis of the most relevant documents on the digitalization of the economy and tax rates, stressing the importance of ensuring correct and transparent laws and regulations.
7. Seventh of all, the sections that follow next are the "Discussion and synthesis of results", "Solutions and recommendations", "Future research directions" and "Conclusion", all interrelated.

8. In the end, the section entitled "References" points out which are the major sources used for the thorough analysis performed in this book chapter.

What is more, the content of this book chapter entitled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" revolves around several key concepts (KC), among which could be mentioned: business, management, Covid-19 crisis, Covid-19 pandemic, base erosion and profit shifting, minimum corporate rate, corporate social responsibility, international tax reform, intangible asset, intellectual capital.

The general research objectives (GRO) of this book chapter entitled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" is: one the one hand, understanding the implications and the benefits of environmental, social and corporate governance by avoiding management bias and tax minimization and, on the other hand, showing the role and the benefits of reaching a general consensus regarding a minimum global tax rate.

Furthermore, as a result of the aspects discussed above, the table below shows the main research question (MRQ) of this book chapter as well as the secondary research questions (SRQ) of this book chapter. In addition, the same table unveils the specific research objectives (SRO) which are derived from the MRQ and the SRQ (see Table 2. Main research question (MRQ), secondary research questions (SRQ) and specific research objectives (SRO) which are derived from the MRQ and the SRQ of this book chapter; see Figure 3 and Figure 4).

Table 2. Main research question (MRQ), secondary research questions (SRQ) and specific research objectives (SRO) which are derived from the MRQ and the SRQ of this book chapter

	Main Research Question (MRQ), Secondary Research Questions (SRQ) and Specific Research Objectives (SRO) Which Are Derived From the MRQ and the SRQ of This Book Chapter
Main research question (MRQ):	• MRQ: In which manner environmental, social and corporate governance can be guaranteed in the attempt to avoid management bias and tax minimization, and what are the implications of reaching a general consensus regarding a minimum global tax rate?
Secondary research questions (SRQ):	• SRQ1: What do environmental, social and corporate governance stand for? • Special mention: The definitions, characteristics, challenges, and examples are addressed in the section "Environmental, social and corporate governance". • SRQ2: What does environmental governance assessment (EGA) stand for? • Special mention: The definitions, instruments for measuring environmental governance (EG), and dimensions of EGA are illustrated in the section "Environmental governance assessment". • SRQ3: What is the relationship between governance performance (GP) and the five dimensions of EGA? • Special mention: The bond that exists between GP and the five dimensions of EGA is analyzed in the section "Environmental governance assessment". • SRQ4: How can management bias be prevented and tax minimization discouraged, and which are the solutions due to be taken into consideration as a result of Covid-19 pandemic shock? • Special mention: The answers to SRQ4 are presented in the section "Preventing management bias and discouraging tax minimization: finding temerarious solutions as a result of Covid-19 pandemic shock". • SRQ5: Which are the new challenges arising from economy's digitalization and which are the solutions due to be considered in reaching a general consensus regarding a minimum global tax rate? • Special mention: The answers to SRQ5 are pointed out in the section "Novel challenges arising from economy's digitalization: reaching a general consensus regarding a minimum global tax rate".
Specific research objectives (SRO):	• SRO1: The first SRO refers to analyzing the environmental, social and corporate governance and their implication in supporting our society as a result of the Covid-19 pandemic shock. • SRO2: The second SRO illustrates the implications EGA for our society and emphasizes the benefits of EGA in ensuring correct, coherent, robust, transparent, and valuable sustainability assessment instruments, methods and procedures. • SRO3: The third SRO tackles the connections that exist between GP and the five dimensions of EGA. • SRO4: The fourth SRO displays the importance of preventing management bias and accentuates the need of discouraging tax minimization, while seeking to find temerarious solutions as a result of Covid-19 pandemic shock. • SRO5: The fifth SRO focuses on discovering novel challenges arising from economy's digitalization, while reaching a general consensus regarding a minimum global tax rate.

Source: the author

Figure 3. Main research question (MRQ) and secondary research questions (SRQ) of the book chapter "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate"
Source: the author

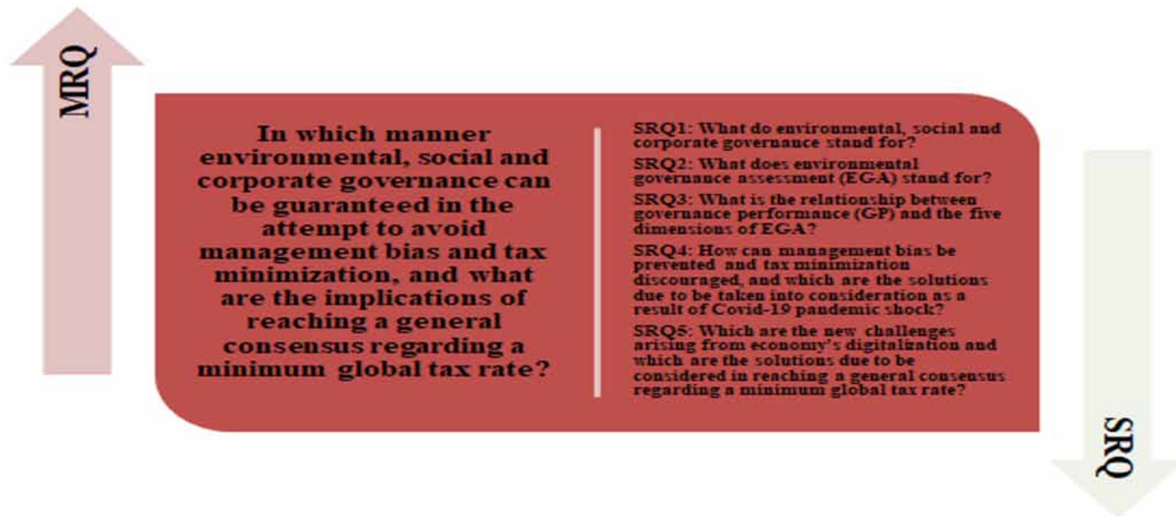
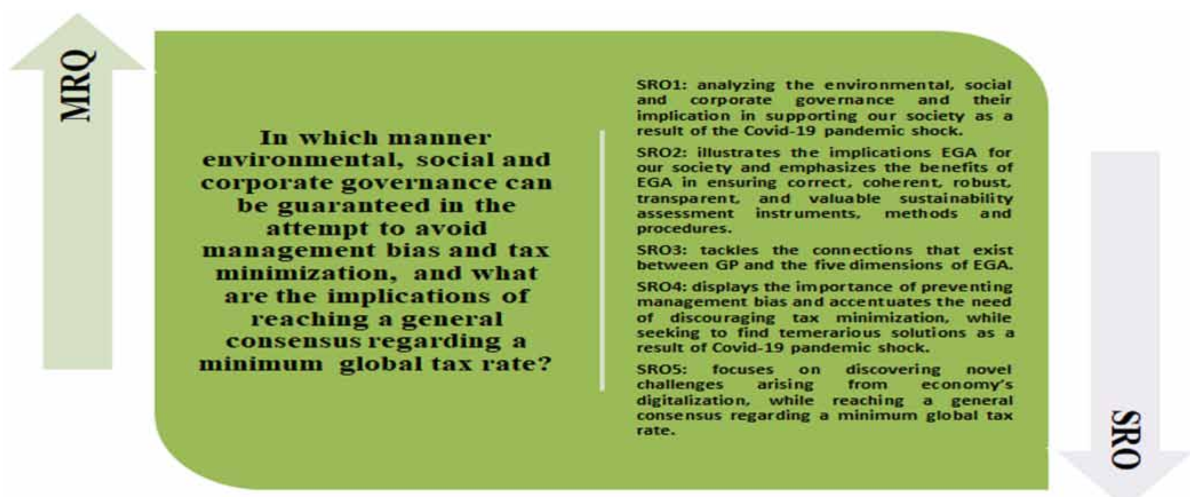


Figure 4. Main research question (MRQ) and specific research objectives (SRO) of the book chapter "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate"
Source: the author



BACKGROUND

The "Background" section of the book chapter "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" takes into consideration two aspects:

- The first dominant aspect is represented by establishing the general background and presenting the ideas derived from several important research papers on topics related to the current theme of this present book chapter.
- The second prominent aspect is represented by addressing a few pivotal definitions for the book chapter entitled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate", which are believed to be vital in the process of analyzing and understanding the present theme.

Based on the aspects mentioned in the lines above, the "Background" section of the book chapter "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" commences with establishing the general background and presenting the ideas derived from several important research papers on topics related to the current theme of this present book chapter. The ideas are presented in Table 3 . In continuation of the aforementioned aspects, the "Background" section of the book chapter "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general

Table 3. Literature review for the book chapter entitled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate"

Vital Documents for the Current Analysis	Literature Review for the Book Chapter Entitled "Environmental, Social and Corporate Governance by Avoiding Management Bias and Tax Minimization: Reaching a General Consensus Regarding a Minimum Global Tax Rate"
The document published on the 22nd of November 2016 by the European Commission (EC), entitled "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Next steps for a sustainable European future. European action for sustainability" (European Commission (EC), 2016a):	• The EC focuses on SD, acknowledging the fact that SD stands at the very core of all EC projects. Thus, SD is the pivotal issue included in all the decisions concerning the future of the EU and the implications of human being activities in economic, social and political domains (European Commission (EC), 2016a, p. 2). • The EC shows a deep concern when addressing the problems currently faced by human beings, not only at the level of the EU, but also at a global level, implying that the future of our planet depends on human beings' actions towards SD, since the resources are limited and the people's demands and expectations for economic prosperity and economic growth are constantly growing (European Commission (EC), 2016a, p. 2). • The EC mentions the imminent need to focus all human beings efforts towards ensuring SD, presented as responsible for standing for "economic prosperity and efficiency, peaceful societies, social inclusion and environmental responsibility" (European Commission (EC), 2016a, p. 2).
The document published in March 2019 by the EC entitled "Commission Staff Working document - Corporate Social Responsibility, Responsible Business Conduct, and Business and Human Rights: Overview of Progress" (European Commission (EC), 2019a):	• Based on the EC document, the activities of organizations have an undeniable impact on our lives and on the environment (European Commission (EC), 2019a, p. 2). • With particular reference to entities' impact on the lives of individuals, the EC mentions several types of relationships, namely: the "working conditions, human rights, health, the environment, innovation, education and training" (European Commission (EC), 2019a, p. 2). • Even though the previously mentioned benefits clearly justify the need for economic development and economic growth, the EC stresses that the opportunities that companies have create come with an enormous price for the natural capital of our planet, which is reflected, in turn, in the health level of the EU citizens (European Commission (EC), 2019a, p. 2).
The document published in April 2019 by the EC entitled "Corporate Social Responsibility, Responsible Business Conduct, and Business & Human Rights. - Overview of Progress" (European Commission (EC), 2019b):	• According to the EC the concepts of CSR, RBC, and Business and Human Rights have come to occupy an important part of our daily lives due to the connections that they bring in terms to sustainability SD (European Commission (EC), 2019b). • Hence, the EU consumers are able to make their products and services purchases based on their own values, while the companies having their activities in the EU need to act accordingly and to prompt their leaders and their employees to coordinate their efforts in the spirit of "environmental, social and moral sustainability", while targeting the accomplishment of SDGs (European Commission (EC), 2019b).

Continued on following page

Table 3. Continued

Vital Documents for the Current Analysis	Literature Review for the Book Chapter Entitled "Environmental, Social and Corporate Governance by Avoiding Management Bias and Tax Minimization: Reaching a General Consensus Regarding a Minimum Global Tax Rate"
The document published on the 30th of January 2019 by the EC entitled "Reflection Paper towards a Sustainable Europe by 2030" (European Commission (EC), 2019c):	● In this document, numerous statistical details that reflect the EU situation were published. ● For instance, according to the data illustrated, the majority of the EU citizens declared that they are happy, content and overall satisfied with their family life, occupation, life in the country they live in and life in the EU (European Commission (EC), 2019c, p. 6). ● For example, according to the data displayed 61% of the EU citizens regard the EU "as a place of stability in a troubled world and the optimism about the future of the EU is growing" (European Commission (EC), 2019c, p. 7). ● Nevertheless, the EC mentioned the fact that, being "in the midst of the fourth industrial revolution", since "nothing is ever complete or permanently settled", there will be numerous challenges due to come that will lead, in turn, to several major changes that will affect these days balance but that should fit to the EU values and the EU interests (European Commission (EC), 2019c, p. 7). ● Thus, the same document brings into attention the following elements: "The Juncker Commission has also proposed to make the EU's finances more sustainable by strengthening the link between EU funding and the rule of law, as well as through a more ambitious target of 25% for climate expenditure in the future EU budget" (European Commission (EC), 2019c, p. 8).
The three book chapters entitled "Approaches to Sustainable and Responsible Entrepreneurship: Creativity, Innovation, and Intellectual Capital as Drivers for Organization Performance" (Popescu, 2020b), "Developing a Model for Entrepreneurship Competencies: Innovation, Knowledge Management, and Intellectual Capital – Success Competences for Building Inclusive Entrepreneurship and Organizational Performance" (Popescu, 2020c) and "Analyzing the Impact of Green Marketing Strategies on the Financial and Non-Financial Performance of Organizations: The Intellectual Capital Factor" (Popescu, 2020d):	● Based on the information presented by the author of these three book chapters, the importance of supporting responsible business activities and sustainable business practices is crucial to our economy and society (Popescu, 2020b; Popescu, 2020c; Popescu, 2020d). ● Also, the key role of intangible assets (IA) at the level of all business activities is activity brought into attention by the aid of these three researches, with a dominant emphasis on intellectual capital (IC) (Popescu, 2020b; Popescu, 2020c; Popescu, 2020d). ● What is more, the competencies of sustainable entrepreneurship are analyzed, while preparing the model of successful entrepreneurship at the level of organizations (Popescu, 2020b; Popescu, 2020c; Popescu, 2020d). ● Furthermore, both IA and IC are closely analyzed in connection to both financial and non-financial performance of entities, in the light of recently (re)discovered role and influence of IA on companies' development (Popescu, 2020b; Popescu, 2020c; Popescu, 2020d).
The two articles published in 2016 in Manager Journal entitled "The Importance of Change Typology – a Key Element in the Enterprise's Organizational Dynamics" (Popescu & Dumitrescu 2016a) and "A New Configuration: Management's Paradigms – Acting in the Context of Social Economy" (Popescu & Dumitrescu, 2016b); the article published in 2018 on "Risks of cyber attacks on financial audit activity" (Popescu & Popescu 2018a); the conference paper on "Methods of Evaluating "Intellectual capital" of an Organization and Ways of Enhancing Performance in the Knowledge-based Economy – A Synthetically Approach" (Popescu & Popescu 2018b) which appeared in the Proceedings of the 32nd International Business Information Management Association Conference; the book chapter entitled "The Social, Economic, and Environmental Impact of Ecological Beekeeping in Romania" (Popescu & Popescu 2019a):	● According to the two studies published by Popescu & Dumitrescu (2016a, 2016b), our society is in a continuous motion, while both adaptation and change are imminent in terms of survival (Popescu & Dumitrescu, 2016a; Popescu & Dumitrescu, 2016b). ● In this context, both adaptation and change may refer to different sides of our society and of our economy, such as, for instance, the need of individuals to adapt to the new economy, the knowledge-based economy, and the need of entities to change in accordance to the rhythm and the requirements of the business environment as well as the marketplace trends (Popescu & Dumitrescu, 2016a; Popescu & Dumitrescu, 2016b). ● As shown by specialists, both the adaptation and the change processes are accompanied by a certain degree of risk, which should be followed by measured directed to minimizing risk and maximizing the benefits and the advantages, on the whole (Popescu & Popescu 2018a). ● In accordance to the new findings, the knowledge-based economy focuses on promoting the role of HR and IC in the attempt to increase productivity, profitability and performance, in a learning environment which is constantly promoted by entities oriented towards lifelong learning activities (Popescu & Popescu 2018b). ● In continuation, lifelong learning activities and concerns are usually connected to the need of communities and societies to create a healthier, a more sustainable environment (Popescu & Popescu 2019a).
The three book chapters published in 2021 on the "Impact of Innovative Capital on the Global Performance of the European Union: Implications on Sustainability Assessment" (Popescu, 2021a), the "Sustainable and Responsible Entrepreneurship for Value-Based Cultures, Economies, and Societies: Increasing Performance through Intellectual Capital in Challenging Times" (Popescu, 2021b), and the "Measuring Progress Towards the Sustainable Development Goals: Creativity, Intellectual Capital, and Innovation" (Popescu, 2021c):	● Given the current circumstances, the SDGs attracted, at the level of the EU, the need for understanding the implications of sustainability assessment and for addressing the requirements of sustainability assessment (Popescu, 2021a). ● It seems that, according to recent studies, sustainability assessment should focus on global performance indicators and sustainable development progress (Popescu, 2021a; Popescu, 2021b). ● In like manner, measuring progress and global performance should also refer to the advantages and the benefits brought by creativity – which is part of individuals' nature, IC – which is a highly praised asset for any entity, and innovation – which is an incontestable priority for any organization investing in research and development and seeking to obtain benefits from the leader position on the marketplace (Popescu, 2021a; Popescu, 2021b).
The three book chapters accepted for publication, and due to appear in 2022, according to the publisher's schedule, on "Fostering Creativity in Business: Empowering Strong Transformational Leaders" (approved and accepted for publication on the 10th of August 2021) (Popescu, 2022), on "Fiscally Responsible Businesses as a Result of Covid-19 Pandemic Shock: Taking Control of Countries' Tax Systems by Putting an End to Corporate Tax Evasion and Tax Havens" (approved and accepted for publication on the 28th of August 2021) (Popescu & Duháček-Šebestová, 2022), and on "Strategic Human Resource Management in the 21st-Century Organizational Landscape: Human and Intellectual Capital as Drivers for Performance Management" (approved and accepted for publication on the 22nd of August 2021) (Popescu & Kyriakopoulos, 2022).	● In the soon to be published book chapter on "Fostering Creativity in Business: Empowering Strong Transformational Leaders", the author brings into discussion the idea of creating robust and sustainable businesses with the aid of creativity and with the benefits derived from leadership (Popescu, 2022). ● What is more, the author illustrates the organizations' need for strong transformational leaders, stressing the fact that good and supportive leadership forms are highly beneficial to the employees, to the clients and customers, and suppliers (Popescu, 2022). ● Furthermore, Popescu and Duháček-Šebestová (2022) acknowledged in the book chapter entitled "Fiscally Responsible Businesses as a Result of Covid-19 Pandemic Shock: Taking Control of Countries' Tax Systems by Putting an End to Corporate Tax Evasion and Tax Havens" the need to foster fiscally responsible businesses, especially as a consequence of the Covid-19 pandemic shock (Popescu & Duháček-Šebestová, 2022). ● Also, in the same scientific work, Popescu and Duháček-Šebestová (2022) highlighted the EU Member States responsibility to ensure a robust fiscal system and to take action in supporting the EU taxpayers, finding solutions to fight against corporate tax evasion and put an end to the influence of tax havens on disturbing and disrupting phenomenon, such as, tax fraud and tax evasion (Popescu & Duháček-Šebestová, 2022). ● On the same note, specialists Popescu and Kyriakopoulos (2022) pointed out in the book chapter "Strategic Human Resource Management in the 21st-Century Organizational Landscape: Human and Intellectual Capital as Drivers for Performance Management" the fact that performance management may undoubtedly benefit from the influence of HC, IC and strategic HRM (Popescu & Kyriakopoulos, 2022).

Continued on following page

Table 3. Continued

Vital Documents for the Current Analysis	Literature Review for the Book Chapter Entitled “Environmental, Social and Corporate Governance by Avoiding Management Bias and Tax Minimization: Reaching a General Consensus Regarding a Minimum Global Tax Rate”
The United Nations (UN) documents:	• The UN documents and reports on “Guiding Principles on Business and Human Rights. Implementing the United Nations “Protect, Respect and Remedy” Framework” (United Nations (UN), 2011), “Report of the Human Rights Council. Organizational session (6 December 2019). Forty-third session (24 February–13 March and 15–23 June 2020). Forty-fourth session (30 June–17 July 2020). General Assembly, Official Records, Seventy-fifth Session Supplement No. 53” (United Nations (UN), 2020a), “Report of the Human Rights Council. Forty-fifth session (14 September–7 October 2020). General Assembly Official Records Seventy-fifth Session Supplement No. 53 A (A/75/53/Add.1)” (United Nations (UN), 2020b), “The Sustainable Development Goals Report 2020” (United Nations (UN), 2020c), “The Sustainable Development Agenda” (United Nations (UN), 2021a), and the United Nations (UN) Global Compact on “UN Global Compact Strategy 2021–2023” (United Nations (UN) Global Compact, 2021), have all demonstrated the need for SD and have raised several key problems derived from nations’ attempt to support the process of SD at a global level. • These documents also come to support the idea that SD should be taken into consideration in terms of human rights and the businesses obligation to support both the environmental preservation principles as well as the human rights.

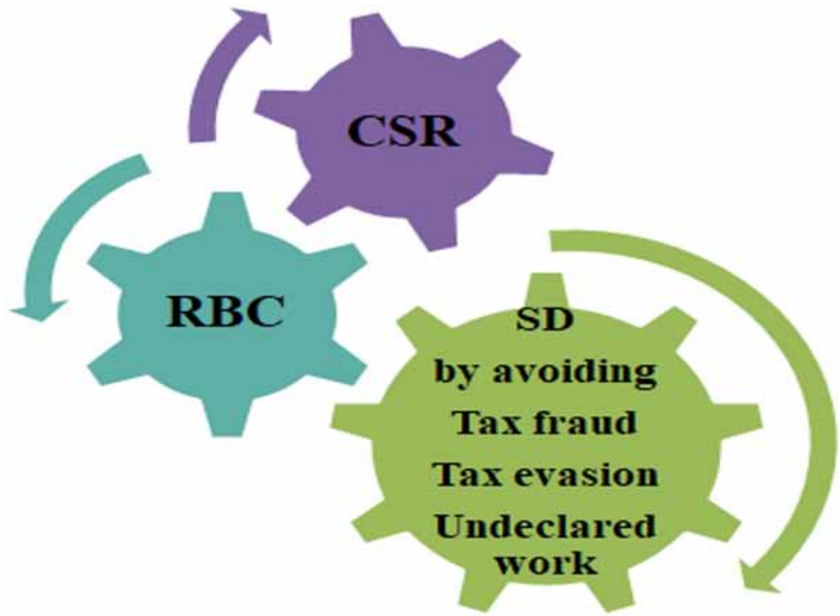
Source: the author, based on the sources cited above

Table 4. Pivotal definitions for the book chapter entitled “Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate”

	Pivotal Definitions for the Book Chapter Entitled “Environmental, Social and Corporate Governance by Avoiding Management Bias and Tax Minimization: Reaching a General Consensus Regarding a Minimum Global Tax Rate”
Corporate Social Responsibility (CSR):	• The Commission of the European Communities defined CSR in the document entitled “Green Paper. Promoting a European framework for Corporate Social Responsibility (COM(2001) 366 final)” published on the 18th of July 2001 as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (Commission of the European Communities, 2001, p. 6). • The Commission of the European Communities also remarked in the same document the fact that numerous European companies have decided to promote “their corporate social responsibility strategies as a response to a variety of social, environmental and economic pressures”, in order to send important signals their stakeholders, such as, for instance: their employees, the shareholders, the clients, the investors, the public authorities and nongovernmental organizations (NGOs) (Commission of the European Communities, 2001, p. 2). • In essence, as pointed out by the Commission of the European Communities, the entities are finding constructive solutions to invest in their future and they believe that by displaying a concerned behavior towards human beings and the environment their profitability will increase (Commission of the European Communities, 2001, p. 2). • Hence, due to the importance and implications of CSR worldwide, the ISO 26000 on Social Responsibility (2010) and the ISO 26000 basic training materials (2014) were prepared (ISO 26000 Social Responsibility, 2010; ISO 26000 basic training materials, 2014).
Responsible Business Conduct (RBC):	• Lately, public authorities are analyzing CSR together with RBC, based on the fact that all EU countries are encouraged to determine the companies that have business activities on their territories “to conduct their business responsibly” (European Commission (EC), 2021a). • Thus, as mentioned by the EC, the OECD has defined RBC as “making a positive contribution to economic, environmental and social progress with a view to achieving sustainable development and avoiding and addressing adverse impacts related to an enterprise’s direct and indirect operations, products or services” (European Commission (EC), 2021a).
Sustainable Development (SD):	• The document published on the 30th of January 2019 by the EC entitled “Reflection Paper towards a Sustainable Europe by 2030” highlights the fact that SD represents “the development that meets the needs of present generations without compromising the ability of future generations to meet their needs”, being “deeply rooted in the European project” (European Commission (EC), 2019c, p. 6). • The same aforementioned document, stresses the fact that SD can be found in all EU actions, such as, for instance: the “European integration and EU policies have helped to overcome post-war poverty and famine, and have created a space of liberty and democracy where European citizens could reach unprecedented levels of prosperity and well-being”, while “the EU has continuously strived for more inclusive societies built on democracy and the rule of law (…)” (European Commission (EC), 2019c, p. 6).
Tax fraud:	• In the document entitled “Communication from the Commission to the European Parliament and the Council on concrete ways to reinforce the fight against tax fraud and tax evasion including in relation to third countries” published by the EC on the 27th of June 2012, tax fraud is defined as being “a form of deliberate evasion of tax which is generally punishable under criminal law”, with the specific mention that “the term includes situations in which deliberately false statements are submitted or fake documents are produced” (European Commission (EC), 2012b, p. 2).
Tax evasion:	• The document entitled “Communication from the Commission to the European Parliament and the Council on concrete ways to reinforce the fight against tax fraud and tax evasion including in relation to third countries” published by the EC on the 27th of June 2012 mentions the fact, by definition, that tax evasion “generally comprises illegal arrangements where liability to tax is hidden or ignored, i.e. the taxpayer pays less tax than he is legally obligated to pay by hiding income or information from the tax authorities” (European Commission (EC), 2012b, p. 2).
Undeclared work:	• The document entitled “Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions. Stepping up the fight against undeclared work” published by the Commission of the European Communities on the 24th of October 2007 defines the concept of “undeclared work” as “any paid activities that are lawful as regards their nature but not declared to public authorities, taking into account differences in the regulatory system of Member States” (Commission of the European Communities, 2017, p. 2).

Source: the author, based on the sources cited above

Figure 5. Key concepts for the book chapter entitled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate"
Source: the author



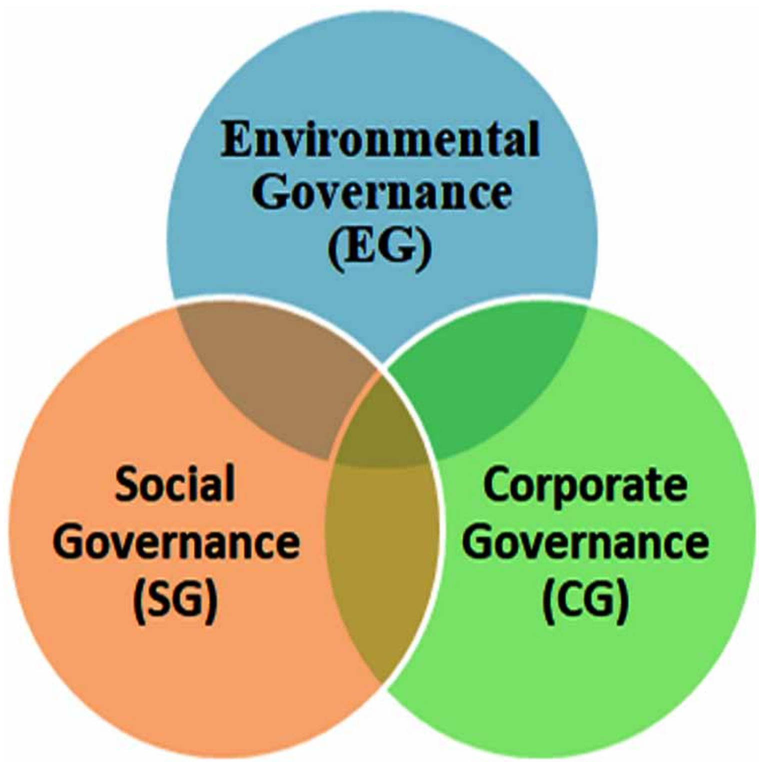
consensus regarding a minimum global tax rate" continues with the analysis of some vital definitions believed to be of utmost importance to the present theme. The ideas are presented in Table 4 and Figure 5.

ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE

The "Environmental, social and corporate governance" section of the book chapter "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" takes into consideration three aspects (see Figure 6):

- The first dominant aspect is represented by "Environmental governance (EG)" and the links existing between EG and robust management practices and policies against tax minimization.
- The second prominent aspect is represented by "Social governance (SG)" and the links existing between SG and robust management practices and policies against tax minimization.
- The third pivotal aspect is represented by "Corporate governance (CG)" and the links existing between CG and robust management practices and policies against tax minimization.

Figure 6. Key connections between environmental, social and corporate governance
Source: the author



Environmental Governance

The first concept due to be analyzed in this subsection on "Environmental governance (EG)", part of the section "Environmental, social and corporate governance", is represented by environmental governance (EG). In the lines below the main definitions, the most important characteristics, the pivotal challenges and some key examples are presented in terms of EG (see Table 5. Environmental Governance (EG): definitions, characteristics, challenges and examples).

Social Governance

The second concept due to be analyzed in this subsection on "Social governance (SG)", part of the section "Environmental, social and corporate governance", is represented by social governance (SG).

The European Parliament (EP) published in May 2020 the document entitled "Social governance in the European Union. Managing complex systems. In-Depth Analysis", in which the main focus is on the analysis of two key concepts (KC): governance and SG (European Parliament (EP), 2020). In this matter, based on the EP document, it is stated that, in most cases, the concept of "governance" is presented in contrast with the concept of "government" (European Parliament (EP), 2020, p. 1). Hence, governance has been positioned in the context of "decentralized markets and networks", while government has been associated with "hierarchy" and "bureaucracy" (European Parliament (EP), 2020, p. 1).

Table 5. Environmental Governance (EG): definitions, characteristics, challenges and examples

	Environmental Governance (EG)
Definitions:	● The European Union (EU), with the aid of the European Commission (EC), has defined environmental governance (EG) in a report published in May 2019 and entitled "Development of an assessment framework on environmental governance in the EU Member States No 07.0203/2017/764990/SER/ENV.E.4. Final report" as: "An inclusive system of actors, institutions and norms that establishes responsibility and accountability, and builds trust and capacity to cooperate in policymaking, decision-making, implementation and enforcement, in the field of environment" (European Commission (EC), 2019d, p. 7). ● According to the United Nations Environment Programme (UNEP), environmental governance (EG) represents "a key driver for the achievement of sustainable development", that should be considered and analyzed together with social governance (SG) and corporate governance (CG) due to the strong connections that exist between the nature of the environment and the social and economic dimensions (United Nations Environment Programme (UNEP), 2021a). ● Also, based on a UNEP document on EG, it has been highlighted that EG raises numerous and increasingly complex challenges especially when referring to a globalized world and the links between nations, economies and people, in particular, on the one hand, due to the need to protect our plant's richness and diverse natural resources and, on the other hand, due to the need to manage environmental threats (United Nations Environment Programme (UNEP), 2021b). ● In continuation, the Australian Panel of Experts on Environmental Law (APPEL) has defined in 2017 EG, in a documentation specially dedicated to understanding the role and importance of the EG, as "the system for governing (shaping, regulating, controlling, directing) the ways in which humans interact with the natural world, and how they interact with each other in relation to the environment", mentioning that regulations represent instruments for governance ((The) Australian Panel of Experts on Environmental Law, 2017). ● Based on the Australian Panel of Experts on Environmental Law (APPEL) documentation, the EG falls in the care of the government and other people and institutions such as, for instance, the citizens, the communities, the nongovernmental organizations, and the businesses, which means that several parties are involved in the decision-making processes which are, in the end, "regulated and influenced by environmental laws", which leads to the conclusion that EG may be represented by the "processes of environmental management" which goes beyond the "direct government regulation" ((The) Australian Panel of Experts on Environmental Law, 2017).
Characteristics:	● The definition provided for EG by the EU and the EC proved to be of utmost importance (aforementioned), making a key link with governance and its key mechanism and instruments, while referring to the EU environmental *acquis*, as well as the Sustainable Development Goals (SDGs) and other "relevant international agreements such as the Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters (the Aarhus Convention) and the Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention)" (United Nations Economic Commission for Europe (UNECE), 1998; United Nations Economic Commission for Europe (UNECE), 2017; European Commission (EC), 2019d, p. 7). ● Nowadays, sustainable development (SD) represents a must and probably the most important objective on the agenda of all nations, hence emphasizing the need for all countries to unite their forces and avoid management bias, focus "on good decision making processes" and rely on "effective institutions, policies, laws, standards and norms" capable to support the achievement of Sustainable Development Goals (SDGs) (United Nations Environment Programme (UNEP), 2021a). ● The EG means taking care of the most stringent matters concerning the environment, such as, for instance, the ones mentioned by the UNEP in "Global Environment Outlook 6" – which is the UN Environment's Sixth Global Environmental Outlook (GEO-6), "the most comprehensive assessment of the state of the world's environment", where specialists have reached an important conclusion, namely the one stating that "our planet is suffering" (United Nations Environment Programme (UNEP), 2019).
Challenges:	● The UNEP has mentioned several environmental threats that have the property of crossing the political boarders, namely "air pollution and biodiversity loss" and has emphasized that these types of challenges will require, in turn, "new global, regional, national and local responses involving a wide range of stakeholders" (United Nations Environment Programme (UNEP), 2021b). ● The UNEP warned about the dangers that arise from water and air pollution, noting "that millions of people in Asia, the Middle East and Africa could die prematurely from water and air pollution by 2050 unless urgent action is taken" (United Nations Environment Programme (UNEP), 2020). ● Based on the UNEP most recent documents and statistics, it should be stressed that environmental degradation represents a serious threat for the natural world and for human beings: "air pollution is a life-and-death issue for too many people, and it is also the largest driver of climate change" (United Nations Environment Programme (UNEP), 2020). ● Besides the threats mentioned in the lines below, other challenges should be added, such as: the climate change, the climate warming – which goes beyond the idea of an environmental problem and reaches the point in which it is considered a problem of national security, being even regarded by specialists as "the greatest threat to global security" (United Nations (UN), 2021b; United Nations Environment Programme (UNEP), 2021c); the extinction of species (United Nations Environment Programme (UNEP), 2021d); the waste of natural resources – which are limited, vital for our day-to-day lives, our health, mental balance and well-being (United Nations Environment Programme (UNEP), 2021d); the tremendous stress faced by most of the planet's ecosystems (United Nations Environment Programme (UNEP), 2021d).
Examples:	EG and the case of Australia: ● The Australian Panel of Experts on Environmental Law (APPEL) mentioned in the documentation from 2017 the fact that in Australia, the environmental issues are in the care of "a federal and democratic system of government", together with the system of taxation and all the complex regulations specific to the social and economic life ((The) Australian Panel of Experts on Environmental Law, 2017). ● Nevertheless, in practice, the process of managing the environment involves very often, other people and other institutions besides the government, such as, for instance: "communities, nongovernmental organizations, business and citizens" ((The) Australian Panel of Experts on Environmental Law, 2017).

Source: the author, based on the sources cited above

What is more, also based on the ideas presented in the document "Social governance in the European Union. Managing complex systems. In-Depth Analysis", SG is represented by the "process of governing societies" in those cases in which there are several actors on the marketplace, which implicates the fact that there are no single actors which possess "absolute dominance", absolute power of decision (European Parliament (EP), 2020, p. 1).

Furthermore, according to the EP, SG as encountered in the documents published by the EU is a term commonly used "in relation to social policies and objectives", while attempting to position the EU economic objectives in the same equation and in balance together with the EU social objectives (European Parliament (EP), 2020, p. 1).

Corporate Governance

In continuation to the two pivotal concepts analyzed above, namely EG and SG, the third concept due to be analyzed in this subsection on "Corporate governance (CG)", part of the section "Environmental, social and corporate governance", is represented by corporate governance (CG).

In this matter, while referring to the "Company Law and Corporate Governance", the EC mentioned several rules that apply in the EU (European Commission (EC), 2021e). Among these rules the EC underlines: firstly, enabling businesses to be set up and to be able to carry out their operations accordingly, anywhere on the EU territory; secondly, providing "protection for shareholders and other parties with a particular interest in companies", among which the organizations' employees and creditors have been named; thirdly, focusing on increasing entities visibility, profitability, productivity and performance, thus ensuring that they are "more efficient, competitive and sustainable" on the long-run; and fourthly, encouraging businesses to cooperate with each other no matter where these businesses are positioned in the EU countries, thus facilitating international cooperation and global exchanges (European Commission (EC), 2021e).

Given the above mentioned aspects, the EU shows constant concern towards CG, which means that the EU entities have to follow the EU laws, rules and regulations that address CG issues (European Commission (EC), 2021e). In this matter, the EU laws, rules and regulations that address CG issues are mainly focused on the "relationships between a company's management, board, shareholders and other stakeholders", which practically refer to the EU concern on about the manner in which the EU companies are being "managed and controlled" (European Commission (EC), 2021e).

There are several vital documents that could be mentioned in this regard, as follows:

- The "Council Regulation (EEC) No 2137/85 of 25 July 1985 on the European Economic Interest Grouping (EEIG)" (European Union (EU), 1985).
- The "Directive 2004/25/EC of the European Parliament and of the Council of 21 April 2004 on takeover bids" (European Union (EU), 2004).
- The "Directive 2007/36/EC of the European Parliament and of the Council of 11 July 2007 on the exercise of certain rights of shareholders in listed companies" (European Union (EU), 2007).

- The "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Action Plan: European company law and corporate governance - a modern legal framework for more engaged shareholders and sustainable companies (European Union (EU), 2012).
- The "Directive (EU) 2017/1132 of the European Parliament and of the Council of 14 June 2017 relating to certain aspects of company law" (European Union (EU), 2017a).
- The "Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement" (European Union (EU), 2017b).
- The "Commission Implementing Regulation (EU) 2018/1212 of 3 September 2018 laying down minimum requirements implementing the provisions of Directive 2007/36/EC of the European Parliament and of the Council as regards shareholder identification, the transmission of information and the facilitation of the exercise of shareholders rights" (European Union (EU), 2018).
- The "Directive (EU) 2019/1151 of the European Parliament and of the Council of 20 June 2019 amending Directive (EU) 2017/1132 as regards the use of digital tools and processes in company law" (European Union (EU), 2019a).
- The "Directive (EU) 2019/2121 of the European Parliament and of the Council of 27 November 2019 amending Directive (EU) 2017/1132 as regards cross-border conversions, mergers and divisions" (European Union (EU), 2019b).

ENVIRONMENTAL GOVERNANCE ASSESSMENT

The fourth section of the study on "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" is represented by "Environmental governance assessment". This particular section is centered, on the one hand, on analyzing the environmental governance assessment (EGA) and, on the other hand, on presenting the governance performance (GP) and the five dimensions of environmental governance assessment (EGA).

The European Union (EU) and the European Commission (EC) highlighted the need for environmental governance assessment (EGA), focusing on preparing influential documents, key policies and important instruments capable to assist all Member States in understanding and measuring the impact of human beings on the environment (European Union (EU), 2021a).

First of all, in the lines below the EGA is thoroughly analyzed, by presenting the most relevant definitions specific to this context, by displaying the instruments for measuring EG and by naming the substantial dimensions of EGA as addressed by the EU (see Table 6).

Second of all, in the lines below the governance performance (GP) and the five dimensions of EGA are emphasized (see Table 7).

Table 6. Environmental Governance Assessment (EGA)

	Environmental Governance Assessment (EGA)
Definitions:	• The text of the Convention on Environmental Impact Assessment in a Transboundary Context defines a major concept for this current study, namely environmental impact assessment (EIA) as "a national procedure for evaluating the likely impact of a proposed activity on the environment" (United Nations Economic Commission for Europe (UNECE), 2017). • In this context, the text of the Convention on Environmental Impact Assessment in a Transboundary Context also highlighted the need to better understand the concept "impact" under these given circumstances, thus providing the following important definition: "any effect caused by a proposed activity on the environment including human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; it also includes effects on cultural heritage or socio-economic conditions resulting from alterations to those factors" (United Nations Economic Commission for Europe (UNECE), 2017).
Instrument for measuring EG:	• The European Union (EU), with the help of the European Commission (EC), is preparing an assessment framework for EG, as it can be seen in some recent documents on "Environmental Governance Assessment" (EGA) (European Union (EU), 2021a). • The text of the Convention on Environmental Impact Assessment in a Transboundary Context emphasized the need to better assess the relationships that exists between the economic activities and their impact on the environment and their consequences on the environment (United Nations Economic Commission for Europe (UNECE), 2017). • In continuation, the text of the Convention on Environmental Impact Assessment in a Transboundary Context points out that the relationship between human beings and the environment is vital to ensuring a general balance, thus enhancing international cooperation is crucial "in assessing environmental impact in particular in a transboundary context" and in ensuring "environmentally sound and sustainable development" (United Nations Economic Commission for Europe (UNECE), 2017).
Dimensions:	• The framework for EG is being developed by EC and has five dimensions, as follows: "transparency, participation, access to justice, compliance assurance / accountability and effectiveness / efficiency" (European Union (EU), 2021a).

Source: the author, based on the sources cited above

Table 7. Governance Performance (GP) and the five dimensions of Environmental Governance Assessment (EGA)

	Governance Performance (GP) and the Five Dimensions of Environmental Governance Assessment (EGA)
Transparency:	• In terms of transparency, the EC mentions, in the document published in May 2019 and entitled "Development of an assessment framework on environmental governance in the EU Member States No 07.0203/2017/764990/SER/ENV.E.4. Final report", the fact that the EU countries are actively implicated in the environmental information, but encountered numerous situations which raised several concerns (European Commission (EC), 2019d, pp. 8-9). • For instance, when referring to the environmental information concerns, the air quality and the air pollution are mainly acknowledge due to the fact that, according to statistics, the EC has managed to gather more data on air quality while compared to other environmental information forms (European Commission (EC), 2019d, pp. 8-9). • Also, in the spirit of "general good" the EC encourages all Member States to "greater public participation in decision-making" (European Commission (EC), 2019d, pp. 8-9).
Public participation:	• While referring to public participation, the EC stresses the fact that by getting more involved in the decisions that are taken at the EU level, individuals will be able to value their "ability to influence environmental outcomes" and will determine national governments to be more and more active and more centered on environmental problems and environmental policy (European Commission (EC), 2019d, p. 9).
Access to justice:	• In terms of the access to justice, the EC mentions, in the document published in May 2019 and entitled "Development of an assessment framework on environmental governance in the EU Member States No 07.0203/2017/764990/SER/ENV.E.4. Final report", the fact that "environmental NGOs have progressively been granted more liberal rights to bring cases, particularly challenges to governmental decisions, than individuals" (European Commission (EC), 2019d, p. 9).
Compliance assurance:	• When reflecting on compliance assurance, the EC stresses the importance of the EU businesses "to comply with environmental obligations", mentioning the need to follow good practice models (European Commission (EC), 2019d, p. 9).
Effectiveness and efficiency:	• The terms effectiveness and efficiency refer in this case to the effectiveness and efficiency of environmental information in showing the EU Member States the environmental implementation policy (European Commission (EC), 2019d, p. 9).

Source: the author, based on the ideas highlighted by the European Commission (EC) in the document entitled "Development of an assessment framework on environmental governance in the EU Member States No 07.0203/2017/764990/SER/ENV.E.4. Final report, published in May 2019 (European Commission (EC), 2019d, pp. 8-9)

PREVENTING MANAGEMENT BIAS AND DISCOURAGING TAX MINIMIZATION: FINDING TEMERARIOUS SOLUTIONS AS A RESULT OF COVID-19 PANDEMIC SHOCK

The fifth section of the study on “Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate” is represented by the part entitled “Preventing management bias and discouraging tax minimization: finding temerarious solutions as a result of Covid-19 pandemic shock”.

Avoiding management bias represents a priority for the EU. In this matter, the EC tackles the importance of “a new diversity and inclusion strategy”, based on the EU “founding values of freedom, democracy, equality, human dignity and the rule of law” (European Commission (EC), 2017, p. 3). Additionally, the core values mentioned earlier stand at the very essence of the EU principles and are highly praised today, guiding in this way the “EU legislation, policies and activities to advance equality, non-discrimination and diversity across Europe” (European Commission (EC), 2017, p. 3). What is more, based on the EC document entitled “Communication of the Commission. A better workplace for all: from equal opportunities towards diversity and inclusion”, the principles of diversity and inclusion refer to the fact that individuals “must benefit from equal treatment and opportunities, irrespective of any ground such as sex, race, color, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation” (European Commission (EC), 2017, p. 7). Furthermore, as acknowledge by the EC there are several major directions that need to be taken into consideration in order to support the principles of diversity and inclusion, such as (European Commission (EC), 2017, p. 7):

1. First of all, the first element mentioned is represented by the implementation of the HR policy “where diversity is regarded as a source of enrichment, innovation and creativity and where inclusion is promoted by managers and all staff, through policies improving work-life balance and flexible working arrangements for both women and men” (European Commission (EC), 2017, p. 7). Hence, the EC document entitled “Communication of the Commission. A better workplace for all: from equal opportunities towards diversity and inclusion” makes reference here of finding solutions in order to offer aid and support to different categories of minorities and, more specifically to “the underrepresented sex”, thus being able to follow the guidelines of the UN Convention on the Rights of Persons with Disabilities (CRPD) (United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD), 2016; European Commission (EC), 2017, p. 7).
2. Second of all, the next aspect pointed out by the EC is “equal opportunities at every step of the career, through selection and recruitment procedures and mobility” (European Commission (EC), 2017, p. 7). Based on the “Communication of the Commission. A better workplace for all: from equal opportunities towards diversity and inclusion”, the EC highlights the fact that the selection and the recruitment of personnel must always be made taking into consideration the merit of the individuals (European Commission (EC), 2017, p. 7). The processes of personnel selection and recruitment must be, as stipulated in the “Communication of the Commission. A better workplace for all: from equal opportunities towards diversity and inclusion”, devoid of bias (European Commission (EC), 2017, p. 7).
3. Third of all, the EC emphasized in the “Communication of the Commission. A better workplace for all: from equal opportunities towards diversity and inclusion” the fact that any kind of discrimina-

tion is unacceptable, stating, for instance, that "divisive or opaque" forms of behavior, "bullying or harassment" are strictly forbidden (European Commission (EC), 2017, p. 7).

4. Fourth of all, the EC stressed the role and the importance of managers as well as HR services in ensuring diversity and inclusion (European Commission (EC), 2017, p. 7). In continuation, following the same line, adapting corporate culture to diversity and inclusion principles was mentioned (European Commission (EC), 2017, p. 7).

The EU Member States are highly concerned about tax minimization and the issues that might occur based on tax minimization decisions. In addition, based on recent statistics, the EU Member States were severely affected by the Covid-19 pandemic shock in all areas, these days' specialists being able even to acknowledge the existence of the Covid-19 crisis as a result of the Covid-19 pandemic.

There are several references that point out towards the importance of creating and enabling a robust and strong "Taxation and Customs Union". For instance, in this regard, several documents are mentioned at the EU and the EC level, as follows:

- The EC "Anti-Tax Avoidance Directive" (2016) (European Commission (EC), 2016c).
- The EC "Anti-Tax Avoidance Package" (2016) (European Commission (EC), 2016d).
- The EC document entitled the "Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market", from the 12th of July 2016 (European Commission (EC), 2016e).
- The EC document entitled the "Proposal for a Council Directive amending Directive (EU) 2016/1164 as regards hybrid mismatches with third countries", published on the 25th October 2016 (European Commission (EC), 2016f).
- The EC document entitled the "Commission Staff Working Document Accompanying the document Proposal for a Council Directive amending Directive (EU) 2016/1164 as regards hybrid mismatches with third countries" published on the 25th October 2016 (European Commission (EC), 2016g).

NOVEL CHALLENGES ARISING FROM ECONOMY'S DIGITALIZATION: REACHING A GENERAL CONSENSUS REGARDING A MINIMUM GLOBAL TAX RATE

The sixth section of the study on "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" is represented by the part entitled "Novel challenges arising from economy's digitalization: Reaching a General Consensus Regarding a Minimum Global Tax Rate". This particular section focuses on novel challenges arising from economy's digitalization, and the importance of reaching a general consensus regarding a minimum global tax rate. These challenges are acknowledged and analyzed below (see Table 8. Novel challenges arising from economy's digitalization: reaching a general consensus regarding a Minimum Global Tax Rate (MGTR)).

Table 8. Novel challenges arising from economy's digitalization: reaching a general consensus regarding a Minimum Global Tax Rate (MGTR)

Year	Novel Challenges Arising From Economy's Digitalization: Reaching a General Consensus Regarding a Minimum Global Tax Rate (MGTR)
2010	• The document published by the Organization for Economic Co-operation and Development (OECD) in 2010 entitled "Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations. International Organizations' Documentation IBFD (IBFD - International Bureau of Fiscal Documentation)" (Organization for Economic Co-operation and Development (OECD), 2010). • Based on this document the following aspects can be mentioned: (a) The role and the importance of Multinational Enterprises (MNEs) have continuously increased at an international level. (b) The rhythm with which the role of MNEs has increased at a global level shows the status of integration of the national economies as well as the technological progress – with the special mention that in the area of communication (digitalization) tremendous progress can be noted. (c) The taxation issues specific to MNEs are extremely complex these days due to the increased role of MNEs worldwide, which implicates that tax administrations should not be considered separately, based on countries' rules, but in broad, complex, and international context.
2011	• The document published by the Organization for Economic Co-operation and Development (OECD) in 2011 entitled "OECD Guidelines for Multinational Enterprises" (Organization for Economic Co-operation and Development (OECD), 2011). • The document on "OECD Guidelines for Multinational Enterprises" makes reference to the "Declaration on International Investment and Multinational Enterprises" from the 25th of March 2011. • Based on the content of the document, the adhering governments at that time were those of all OECD member states, "as well as Argentina, Brazil, Egypt, Latvia, Lithuania, Morocco, Peru and Romania", with the special mention that the EC received an invitation "to associate itself with the section on National Treatment on matters falling within its competence" (Organization for Economic Co-operation and Development (OECD), 2011, p. 7). • The document on "OECD Guidelines for Multinational Enterprises" underlines several key issues, such as: (a) The international investments are vital for the development of nations' economies, consistently contributing to the countries' development (Organization for Economic Co-operation and Development (OECD), 2011, p. 7). (b) The countries' investment process includes MNEs and their notable contribution (Organization for Economic Co-operation and Development (OECD), 2011, p. 7). (c) The international cooperation between all regions and countries plays a pivotal role in improving "the foreign investment climate", in encouraging MNEs to contribute in a positive way "to economic, social and environmental progress", and in finding constructive solutions to all the difficult and stringent matters that may be encountered in the MNEs operations (Organization for Economic Co-operation and Development (OECD), 2011, p. 7). (d) The countries are encouraged to closely support international cooperation, international investments and MNEs activities in the spirit of economic growth and sustainable development and in the quest for a better future and a better life (standard of living) for human beings, considering the fact that "the benefits of international cooperation" are due to arise from "a balanced framework of interrelated instruments" (Organization for Economic Co-operation and Development (OECD), 2011, p. 7). (e) Nevertheless, all the adhering governments to the "Declaration on International Investment and Multinational Enterprises" should be focused on maintaining "public order", should be concentrated on "their essential security interests", and should make a priority out of respecting the "commitments relating to international peace and security" (Organization for Economic Co-operation and Development (OECD), 2011, p. 8). (f) In like manner, the "OECD Guidelines for Multinational Enterprises" makes specific references to "for responsible business conduct in a global context" and accentuates several valuable recommendations, among which could be mentioned the following aspects (Organization for Economic Co-operation and Development (OECD), 2011, p. 11): the operations and the activities of the MNEs should be in harmony with the government policies; the confidence between the organizations and the countries in which these organizations perform their activities should be strengthened in order to encourage the continuation of the collaboration, since benefits clearly exist for all parties; small and medium-sized enterprises (SMEs) should be motivated to develop and get involved more in the activities of the communities, since these entities bring an important infusion of foreign investments, thus playing a vital "role on the international scene"; the foreign investment climate should be improved and efforts should be made in this matter in order to create a constructive and robust business environment in which MNEs may bring their pivotal contribution to sustainable development (Organization for Economic Co-operation and Development (OECD), 2011, p. 13).
2012	• The document published by the European Commission (EC) on the 6th of December 2012 entitled "Communication from the Commission to the European Parliament and the Council. An Action Plan to strengthen the fight against tax fraud and tax evasion. COM(2012) 722 final" (European Commission (EC), 2012a). • The document "Communication from the Commission to the European Parliament and the Council. An Action Plan to strengthen the fight against tax fraud and tax evasion. COM(2012) 722 final" focuses itself on finding relevant and viable solutions capable to improve the European Council's efforts in order to be able to "fight against tax fraud and tax evasion" (European Commission (EC), 2012a, p. 2). • In this specific context, it should be highlighted that the EC dedicated the efforts towards finding, on the one hand, solutions to improve tax compliance and, on the other hand, reducing fraud and evasion at an international level (European Commission (EC), 2012a, p. 2). In this matter, the paper on "Communication from the Commission to the European Parliament and the Council. An Action Plan to strengthen the fight against tax fraud and tax evasion. COM(2012) 722 final" makes reference to the need to better use the already existing instruments capable to help tax compliance and mentions the idea that international organisms should unite their efforts in preparing new proposals of legislative actions meant to support reducing fraud and evasion at a global level, thus representing a benefit for the EU and all Member States (European Commission (EC), 2012a, p. 2).
	• The document published by the Organization for Economic Co-operation and Development (OECD) in 2012 entitled "The Global Forum on Transparency and Exchange of Information for Tax Purposes. Information Brief" (Organization for Economic Co-operation and Development (OECD), 2012). • In this document, the OECD highlights the need for transparency, in the attempt to ensure a reliable flow in terms of the exchange of information for tax purposes (Organization for Economic Co-operation and Development (OECD), 2012).
2013	• The document published by the Organization for Economic Co-operation and Development (OECD) in 2013 entitled "Addressing Base Erosion and Profit Shifting, OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD) in 2013a). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2013 entitled "Action Plan on Base Erosion and Profit Shifting" (Organization for Economic Co-operation and Development (OECD) in 2013b).
	• The two documents mentioned above are believed to be crucial for ensuring a correct financial activity at the level of all countries, in the attempt to support correct and transparent business practices (Organization for Economic Co-operation and Development (OECD), 2013a; Organization for Economic Co-operation and Development (OECD) in 2013b). • The two documents highlight the role of fixing a minimum percentage in terms of taxes due to be paid by multinational corporations to the countries, in order to stop tax minimization, and profit shifting (Organization for Economic Co-operation and Development (OECD), 2013a; Organization for Economic Co-operation and Development (OECD) in 2013b).
2014	• The document published by the European Parliament (EP) and the Council of the European Union on the 22nd of October 2014 entitled "Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups. Text with EEA relevance" (European Parliament & the Council of the European Union, 2014). • The document published by the Organization for Economic Co-operation and Development (OECD) in July 2014 entitled "Part 1 - Report to G20 Development Working Group on the Impact of BEPS in Low Income Countries (July 2014)" (Organization for Economic Co-operation and Development (OECD), 2014a). • The document published by the Organization for Economic Co-operation and Development (OECD) in August 2014 entitled "Part 2 - Report to G20 Development Working Group on the Impact of BEPS in Low Income Countries (August 2014)" (Organization for Economic Co-operation and Development (OECD), 2014b). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2014 entitled "Strategy for Deepening Developing Country Engagement in the BEPS Project" (Organization for Economic Co-operation and Development (OECD), 2014c).

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Table 8. Continued

Year	Novel Challenges Arising From Economy's Digitalization: Reaching a General Consensus Regarding a Minimum Global Tax Rate (MGTR)
2014 (cont.)	• The documents mentioned in the lines above have great added value when referring to nations' tax systems, since they were all prepared in the spirit of avoiding bias and tax minimization, and with the need to support the disclosure of non-financial and diversity information by certain large undertakings and groups (European Parliament & the Council of the European Union, 2014). • Also, based on the data presented in these documents, several steps taken by G20 Development Working Group in the spirit of international cooperation are mentioned, based on the belief that the impact of BEPS in the low income countries has key implications for the low income countries (Organization for Economic Co-operation and Development (OECD), 2014a; (Organization for Economic Co-operation and Development (OECD), 2014b; (Organization for Economic Co-operation and Development (OECD), 2014c).
2015	• The document published by the Joint Committee on Taxation on the 30th of November 2015 entitled "Background, Summary, and Implications of the OECD/G20 Base Erosion and Profit Shifting Project (JCX-139-15)" (Joint Committee on Taxation, 2015). • The document published by the United Nations (UN) in 2015 entitled "Subcommittee on Base Erosion and Profit Shifting Issues for Developing Countries" (United Nations (UN), 2015). • The document published by the United Nations (UN) and the International Bureau of Fiscal Documentation (IBFD)in 2015 entitled "Developing Countries' Reactions to the G20/ OECD Action Plan on Base Erosion and Profit Shifting" (United Nations (UN) & International Bureau of Fiscal Documentation (IBFD), 2015). • The document published by the United Nations Conference on Trade and Development (UNCTAD) in 2015 entitled "World Investment Report 2015: Reforming International Investment Governance" (United Nations Conference on Trade and Development (UNCTAD), 2015). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2015 entitled "Transfer Pricing Documentation and Country-by-Country Reporting, Action 13 – 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD), 2015a). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2015 entitled "Addressing the Tax Challenges of the Digital Economy, Action 1 – 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD), 2015b). Organization for Economic Co-operation and Development (OECD). (2015b). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2015 entitled "Measuring and Monitoring BEPS, Action 11 – 2015 Report, OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD), 2015c).
	• The content of the documents listed above focuses on the background, summary, and implications of the OECD/G20 Base Erosion and Profit Shifting Project, addressing, in the same time, the tax challenges of the digital economy, and seeking viable solutions capable to measure and monitor BEPS.
2016	• The document published by the Council of the European Union on the 5th of February 2016 entitled "EU-Andorra agreement on the automatic exchange of financial account information. Legislative Acts and Other Instruments: Amending Protocol to the Agreement between the European Community and the Principality of Andorra providing for measures equivalent to those laid down in Council Directive 2003/48/EC on taxation of savings income in the form of interest payments" (Council of the European Union, 2016). • The document published by the European Commission (EC) in 2016 entitled "Fair Taxation: Commission launches work to create first common EU list of non-cooperative tax jurisdictions" (European Commission (EC), 2016b).
	• The two documents mentioned above focus themselves on the need to ensure automatic exchange of financial account information and to support fair taxation and cooperation in terms of tax jurisdictions (Council of the European Union, 2016; European Commission (EC), 2016b).
2017	• The document published by the European Parliament (EP) in 2017 entitled "Understanding the rationale for compiling 'tax haven' lists" (European Parliament (EP), 2017). • This document has a vital importance while referring to tax havens and their effects on international tax systems (European Parliament (EP), 2017).
	• The document published by the Organization for Economic Co-operation and Development (OECD) on the 10th of July 2017 entitled "OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations" (Organization for Economic Co-operation and Development (OECD), 2017). • This work emphasizes the increasing role of MNEs, and stresses the fact that MNEs and tax administrations are confronting themselves with practical difficulties when having to determine "the income and expenses of a company or a permanent establishment which is part of an MNE group that should be taken into account with a jurisdiction", especially in those cases in which "the MNE group's operations are highly integrated" (Organization for Economic Co-operation and Development (OECD), 2017, p. 15). • In continuation, this work displays several arguments that demonstrate the existence of specific problems with which both MNEs and tax administrations are confronting themselves with (Organization for Economic Co-operation and Development (OECD), 2017, p. 15). These aspects are highlighted in the lines below, as follows: (a) In the case of MNEs, the difficulties may arise from the fact that MNEs "need to comply with laws and administrative requirements that may differ" from one country to another (Organization for Economic Co-operation and Development (OECD), 2017, p. 15). In turn, these "differing requirements may lead to a greater burden on an MNE" when referring, for instance, to "higher costs of compliance" by comparison with similar organizations that are operating "solely within a tax jurisdiction" (Organization for Economic Co-operation and Development (OECD), 2017, p. 15). (b) In the case of tax administrations, there are usually two key problems that need to be brought to light in order to emphasize the difficulties arising in this specific context: on the one hand, the difficulties at the policy level, and, on the other hand, the difficulties at the practical level (Organization for Economic Co-operation and Development (OECD), 2017, p. 15). First of all, "at the policy level countries need to reconcile their legitimate right to tax the profits of the taxpayer based upon income and expenses that can reasonably be considered to arise within their territory with the need to avoid taxation of the same item of income by more than one tax jurisdiction" (Organization for Economic Co-operation and Development (OECD), 2017, p. 15). The OECD highlights the fact that the cases of double or multiple forms of taxation can severely affect "the movement of capital" and "create an impediment to cross-border transactions in goods and services" (Organization for Economic Co-operation and Development (OECD), 2017, p. 15). Second of all, at the practical level, countries may be in the situations in which they are unable to have access to "pertinent data located outside" their own jurisdiction, which automatically leads to the impossibility to determine in an accurate, correct and transparent manner the way in which the income and expense allocation was performed by MNEs (Organization for Economic Co-operation and Development (OECD), 2017, p. 15).
2018	• The document published by the European Parliament (EP) in 2018 entitled "Listing of tax havens by the EU" (European Parliament (EP), 2018). • The document published by the United Nations Conference on Trade and Development (UNCTAD) in 2018 entitled "Estimating the fiscal effects of base erosion and profit shifting: data availability and analytical issues" (United Nations Conference on Trade and Development (UNCTAD), 2018). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2018 entitled "Tax Challenges Arising from Digitalisation – Interim Report 2018: Inclusive Framework on BEPS, OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD), 2018a). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2018 entitled "OECD Due Diligence Guidance for Responsible Business Conduct" (Organization for Economic Co-operation and Development (OECD), 2018b).
	• Due to numerous challenges that arise these days from digitalization as well as in the spirit of acting in terms of ensuring CSR and RBC, international organizations have mentioned the need of creating an inclusive framework on BEPS. In this matter, the documents mentioned above come to support the need for an inclusive framework on BEPS.

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Table 8. Continued

Year	Novel Challenges Arising From Economy's Digitalization: Reaching a General Consensus Regarding a Minimum Global Tax Rate (MGTR)
2019	• The document published by the European Parliamentary Research Service (EPRS) in October 2019 entitled "Briefing: Understanding BEPS. From tax avoidance to digital tax challenges" (European Parliamentary Research Service (EPRS), 2019). • The document published by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in 2019 entitled "Studies in Trade, Investment and Innovation No. 90. Foreign Direct Investment and Sustainable Development in International Investment Governance (ST/ESCAP/2883)" (United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), 2019). • The document published by the World Economic Forum (WEF) in December 2019 entitled "White paper. Corporate Tax, Digitalization and Globalization. Platform for Shaping the Future of Trade and Global Economic Interdependence" (World Economic Forum (WEF), 2019). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2019 entitled "Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy, OECD/G20 Inclusive Framework on BEPS" (Organization for Economic Co-operation and Development (OECD), 2019).
	• The documents mentioned above refer to the need to avoid tax minimization, and highlight the need for creating a platform for shaping the future of trade and global economic interdependence, especially in a diverse economic environment such as the one created by the globalization phenomenon.
2020	• The document published by the Organization for Economic Co-operation and Development (OECD) in 2020 entitled "The impact of the pillar one and pillar two proposals on MNE's investment costs: An analysis using forward-looking effective tax rates" (Hanappi & González Cabral, 2020). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2020 entitled "Corporate Taxation and Investment of Multinational Firms: Evidence from Firm-Level Data" (Millot *et al.*, 2020). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2020 entitled "Corporate Tax Statistics" (Organization for Economic Co-operation and Development (OECD), 2020a). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2020 entitled "Statement by the OECD/G20 Inclusive Framework on BEPS on the Two-Pillar Approach to Address the Tax Challenges Arising from the Digitalisation of the Economy – January 2020, OECD/G20 Inclusive Framework on BEPS" (Organization for Economic Co-operation and Development (OECD), 2020b). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2020 entitled "Tax Challenges Arising from Digitalisation – Economic Impact Assessment: Inclusive Framework on BEPS, OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD), 2020c). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2020 entitled "Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint: Inclusive Framework on BEPS, OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD), 2020d). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2020 entitled "Tax Challenges Arising from Digitalisation – Report on Pillar Two Blueprint: Inclusive Framework on BEPS, OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD), 2020e).
	• The documents mentioned in the lines above show the OECD efforts to support the creation of an inclusive framework on BEPS. The same documents display the OECD struggle to face the challenges of the digitalization of the economy processes while working towards establishing effective tax rates.
2021	• The document published on the 14th of June 2021by the Council on Foreign Relations (CFR) entitled "Where Is the G7 Headed?" (Council on Foreign Relations (CFR), 2021). • The document published by the European Commission (EC) in 2021 entitled "Time to get the missing part back" (European Commission (EC), 2021b). • The document published by the European Commission (EC) in 2021 entitled "The fight against tax fraud and tax evasion" (European Commission (EC), 2021c). • The document published by the European Commission (EC) in 2021 entitled "Role of the G7" (European Commission (EC), 2021d). • The documents and information published on the website entitled Exchange of Tax Information Portal (2021) (Exchange of Tax Information Portal, 2021). • The document published by the United Nations Conference on Trade and Development (UNCTAD) in 2021 entitled "World Investment Report 2021. Investing in Sustainable Recovery – Overview (UNCTAD/WIR/2021 (Overview))" (United Nations Conference on Trade and Development (UNCTAD), 2021). • The document published by the Organization for Economic Co-operation and Development (OECD) in July 2021 entitled "Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy – July 2021, OECD/G20 Inclusive Framework on BEPS" (Organization for Economic Co-operation and Development (OECD), 2021a). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2021 entitled "International Collaboration to End Tax Avoidance" (Organization for Economic Co-operation and Development (OECD), 2021b). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2021 entitled "OECD/G20 Base Erosion and Profit Shifting Project" (Organization for Economic Co-operation and Development (OECD), 2021c). • The document published by the Organization for Economic Co-operation and Development (OECD) in July 2021 entitled "OECD/G20 Base Erosion and Profit Shifting Project. Addressing the tax challenges arising from the digitalisation of the economy – July 2021" (Organization for Economic Co-operation and Development (OECD), 2021d). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2021 entitled "Fighting tax evasion" (Organization for Economic Co-operation and Development (OECD), 2021e). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2021 entitled "Publications Documents News Release" (Organization for Economic Co-operation and Development (OECD), 2021f). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2021 entitled "Action 1 Tax Challenges Arising from Digitalisation (Organization for Economic Co-operation and Development (OECD), 2021g). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2021 entitled "130 countries and jurisdictions join bold new framework for international tax reform" (Organization for Economic Co-operation and Development (OECD), 2021h). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2021 entitled "Tax and digital: OECD/G20 Inclusive Framework on BEPS invites public input on the Pillar One and Pillar Two Blueprints" (Organization for Economic Co-operation and Development (OECD), 2021i). • The document published by the Organization for Economic Co-operation and Development (OECD) in July 2021 entitled "Statement on a Two-Pillar Solution to Address the Tax Challenges Arising From the Digitalisation of the Economy – 1 July 2021 (Organization for Economic Co-operation and Development (OECD), 2021j). • The document published by the Organization for Economic Co-operation and Development (OECD) in 2021 entitled "OECD Secretary-General Tax Report to G20 Finance Ministers and Central Bank Governors" (Organization for Economic Co-operation and Development (OECD), 2021k).
	• The documents mentioned in the lines above are pointing into the direction of the fight for tax evasion, supporting international cooperation and ensuing correct tax rates and robust tax systems.

Source: the author, based on the sources cited above

DISCUSSION AND SYNTHESIS OF RESULTS

This section which is an integrating part of the book chapter entitled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" is represented by the "Discussion and synthesis of results" and is meant to illustrate the most relevant aspects highlighted in this current work as well as the most relevant topics of discussion that were brought to light in this context.

Also, it should be stressed that numerous international organisms have dedicated their efforts to analyzing the environmental, social and corporate governance, have focused themselves on finding new solutions and novel approaches capable to facilitate avoiding management bias and tax minimization and have concentrated on showing the need for reaching a general consensus regarding a minimum global tax rate.

Among such prestigious and powerful institutions and organizations could be mentioned the following ones (without limiting ourselves to solely these ones): the Council of the European Union (CEU), the Council on Foreign Relations (CFR), the European Commission (EC), the European Parliament (EP), the European Parliamentary Research Service (EPRS), the European Union (EU), the International Bureau of Fiscal Documentation (IBFD), the Joint Committee on Taxation (JCT), the Organization for Economic Co-operation and Development (OECD), the United Nations (UN), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the United Nations Economic Commission for Europe (UNECE), the United Nations Environment Programme (UNEP), the United Nations Conference on Trade and Development (UNCTAD) and the World Economic Forum (WEF).

In the current context, it should be mentioned that the OECD – as "a unique forum where governments work together to address the economic, social and environmental challenges of globalization", plays a key role, on the one hand, in promoting the values of the environmental, social and corporate governance by avoiding management bias and tax minimization and, on the other hand, plays a major part in helping countries to reach a general consensus regarding a minimum global tax rate (MGTR) (Organization for Economic Co-operation and Development (OECD), 2021l, p. 10). In continuation, it should be emphasized that in the "Decision of the OECD Council on the OECD Guidelines for Multinational Enterprises" the determining role of the OECD is clearly stated in this regard, as follows: "The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population" (Organization for Economic Co-operation and Development (OECD), 2021l, p. 10). In essence, the role of the OECD is fundamental in aiding nations' worldwide to cope with the new challenges and the new transformations faced by our society, since it "provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies" (Organization for Economic Co-operation and Development (OECD), 2021l, p. 10).

What is more, the OECD operates with a plethora of legal instruments which have the capacity to enable adhering countries to adapt to the new trends that arise in the society and in the economy, which are displayed online in the Compendium of OECD Legal Instruments and which could be categorized as follows: decisions; recommendations; declarations; international agreements; and arrangement, understanding and others (Organization for Economic Co-operation and Development (OECD), 2021l, p. 10).

In the same context, it should be mentioned that the document published on the 30th of January 2019 by the EC entitled "Reflection Paper towards a Sustainable Europe by 2030" mentions several solutions and highlights some recommendations that should be taken into account (European Commission (EC), 2019c). For instance, a possible recommendation is represented by the “daunting task to modernize our economic model”, in order “to address the social issues” faced by our society and “to continue to nurture and foster a strong rules-based multilateral cooperation” (European Commission (EC), 2019c, p. 13). Additionally, another solution proposed would be to discover several other “necessary ingredients to secure social stability, to let our economies thrive, and to improve our health”, besides multinational cooperation, such as: “leading by example, setting global standards”, modernizing the EU policies, and fostering sustainability, in the spirit of meeting the SDGs goals and ensuring “a sustainable Europe by 2030” (European Commission (EC), 2019c, p. 13). What is more, the EC entitled “Reflection Paper towards a Sustainable Europe by 2030” notes that: “our free societies require economic dynamism, continuous investments in key enabling technologies and in education” and, in the same time, “for a better future for all”, there is also the need for “a reinvented form of sustainable growth, based on the understanding that the natural boundary conditions of the 21st century” (European Commission (EC), 2019c, p. 13).

It should be pointed out that the abbreviations used in the book chapter are presented below and explained (see Table 9):

Table 9. Abbreviations used in the book chapter

List of Abbreviations	Meaning of the Abbreviations
APPEL	(The) Australian Panel of Experts on Environmental Law
BEPS	Base Erosion and Profit Shifting
BITs	Bilateral Investment Treaties
CFR	Council on Foreign Relations
CG	Corporate Governance
CSR	Corporate Social Responsibility
CEU	Council of the European Union
EIA	Environmental Impact Assessment
EC	European Commission
EG	Environmental Governance
EGA	Environmental Governance Assessment
EP	European Parliament
EPRS	European Parliamentary Research Service
EU	European Union
FDI	Foreign Direct Investments
GDP	Gross Domestic Product
GP	Governance Performance
G7	The Group of Seven
G20	The Group of Twenty
HC	Human Capital
HR	Human Resources
HRM	Human Resources Management
IIR	Income Inclusion Rule
IA	Intangible Assets
IBFD	International Bureau of Fiscal Documentation

Continued on following page

Table 9. Continued

List of Abbreviations	Meaning of the Abbreviations
IC	Intellectual Capital
ILO	International Labour Organization
IT	Information and Technology
JCT	Joint Committee on Taxation
KC	Key Concepts
MCR	Minimum Corporate Rate
MGTR	Minimum Global Tax Rate
MTR	Minimum Tax Rate
MNE	Multinational Enterprise
MNEs	Multinational Enterprises
NAPs	National Action Plans
NGOs	Nongovernmental Organizations
OECD	Organization for Economic Co-operation and Development
PCD	Policy Coherence for Development
Q	Question
RBC	Responsible Business Conduct
RQ	Research Question
SG	Social Governance
SRO	Specific Research Objectives
SD	Sustainable Development
SDGs	Sustainable Development Goals
SMEs	Small and Medium-Sized Enterprises
UTPR	Under-taxed Payment Rule
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNGPs	UN Guiding Principles on Business and Human Rights
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
USA	United States of America
VAT	Value-Added Tax
WEF	World Economic Forum

Source: the authors

SOLUTIONS AND RECOMMENDATIONS

This section which is an integrating part of the book chapter entitled "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" is represented by the "Solutions and recommendations".

Several international institutions worldwide have emphasized numerous solutions and recommendations capable to support the countries' robust and transparent financial flows, by avoiding management bias and tax minimization.

In the document entitled "Better Policies for Development 2014: Policy Coherence and Illicit Financial Flows" the OECD highlighted the need for policy coherence for development, emphasized the challenges derived from illicit finical flaws, acknowledge the role of international cooperation for SD, and mentioned the idea of creating an inclusive and sustainable framework for SD centered on transparent financial transactions (Organization for Economic Co-operation and Development (OECD), 2014d). Thus, a major solution offered by the OECD refers to creating and supporting the policy coherence for development (PCD) framework (Organization for Economic Co-operation and Development (OECD), 2014d, pp. 21-44).

In continuation, the EC in the document entitled "Development of an assessment framework on environmental governance in the EU Member States No 07.0203/2017/764990/SER/ENV.E.4. Final report, published in May 2019, highlights the need for enhancing environmental, social and corporate governance measures (European Commission (EC), 2019d, p. 17). In this matter, while referring to environmental governance the EC demonstrated the need for the development of an assessment framework, since "an inclusive system of actors, institutions and norms" would most likely center on establishing "responsibility and accountability (…) in the field of environment" (European Commission (EC), 2019d, p. 17). Nevertheless, while pointing out that "the EU environmental *acquis*" is a vital asset for all EU Member States, the EC emphasized the importance of "developing a consistent approach to comparing and aggregating results" at a general level (European Commission (EC), 2019d, p. 17, p. 28).

FUTURE RESEARCH DIRECTIONS

In this particular context, it should be pointed out that this current research represents the continuation of the already approved and accepted for publication (on the 28th of August 2021) book chapter on "Fiscally responsible businesses as a result of Covid-19 pandemic shock: taking control of countries' tax systems by putting an end to corporate tax evasion and tax havens", due to be soon published in the IGI Global book entitled "Changing Dynamics in Responsible and Sustainable Business in the Post-COVID-19 Era" (Popescu & Duháček-Šebestová, 2022).

In terms of future research directions there are several aspects that require the continuation of this current analysis. A few examples are illustrated below:

- For instance, one possible direction of analysis could be represented by the implications of management bias at the level of the EU Member States. This new direction could also represent an opportunity to further the research already started by Popescu and Kyriakopoulos entitled "Strategic human resource management in the 21st-century organizational landscape: human and intellectual capital as drivers for performance management", which is a book chapter approved and accepted for publication on the 22nd of August 2021, soon to be published in the IGI Global book on "COVID-19 pandemic impact on new economy development and societal change" (Popescu & Kyriakopoulos, 2022). This new research direction could make reference to the importance and the role of leaders and of leadership, as acknowledged by Popescu (2022) in the book chapter entitled "Fostering creativity in business: empowering strong transformational leaders", approved and accepted for publication on the 10th of August 2021, in the IGI Global book on "Changing Dynamics in Responsible and Sustainable Business in the Post-COVID-19 Era" (Popescu, 2022).

- For example, another possible research direction could lead to a robust analysis in terms of ethics in business, with key references to vital elements for the business environment, such as, for instance, the need for trust and trustworthy behavior in business, the bonds that may be encountered in organizations in terms of ethics, productivity and performance.

CONCLUSION

All in all, there are several aspects that lead to the conclusion that this current research on "Environmental, social and corporate governance by avoiding management bias and tax minimization: reaching a general consensus regarding a minimum global tax rate" is highly important for the current context.

One issue that finds it place for debate here refers to the implications of the new economy, the knowledge-based economy, which lead to the digitalization of the economy. Due to the digitalization of the economy, major changes occurred at the level of countries and, implicitly, in all domains. While referring, for instance to the EU nations, the challenges and the changes are without precedent, and the EU Member States strive to adapt to the new economy in the attempt to maintain the current status at the international level.

Another issue that may be brought to light here is represented by the implications derived from environmental, social and corporate governance, in the context in which countries need support, assistance and examples of good practices as guidance. The relationship that exists between human beings and the environment is unbreakable, the link being tremendously strong and the bond being vital for the existence of individuals and ecosystems. These days, the accent falls on well-being and mindfulness in several areas, since the importance of leading a healthy life in a healthy environment and a healthy society, with the need to ensure a healthy economy, are believed to be the very essence of our society and stand at the very core of a prosperous future.

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KEY TERMS AND DEFINITIONS

Environmental, Social, and Corporate Governance: Are three forms of governance strongly interconnected, which show the powerful bond that exists between a balanced environment, a healthy society system, and concerned and responsible entities.

Fairness in International Reporting and International Transactions: Are considered vital attributes of healthy tax systems; and, while referring to the European Union Member States, it should be pointed out that the European Commission's agenda focuses on awareness in terms of international reporting, creating robust financial systems and helping the European Union Member States to cope better and more efficiently and successfully with the provocations of the COVID-19 pandemic shock as well as the COVID-19 crisis.

Chapter 7
Impact of COVID-19 on Indian Migrant Workers and the Informal Sector:
Policy Imperatives

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ABSTRACT

The Indian and the international media presented the Indian migrant workforce's troubles during the COVID-19 crisis. The unprecedented circumstances opened a Pandora's box of years of neglect and sidelining of the welfare and wellness of the migrant workers of the informal sector. The literature was sourced from the workforce migration literature of India, newspapers, government and private agency reports, population census of 2011, and research papers published during the period. This exploratory research has the objective to explore the informal sector's background and the migrant workers of India before the pandemic to understand the immediate short-term implications and the long-term impact of the pandemic across all sections of the informal workers. Finally, the research concludes with a discussion on the policy imperatives deemed to have a beneficial effect on the migrant workers in future years, once the COVID-19 crisis is over.

INTRODUCTION

The impact of the COVID-19 pandemic is profound and has been creating upheavals that have ravaged economies across the globe. This is the worst of times people have faced in many years, and suddenly there is a paused reality that lies between the intersecting existences of a sophisticated global world and a de-globalized world too. The severe debacle has prevailed in the supply chain systems worldwide, the travel, tourism and hospitality industries, aviation and retail sectors, not to mention the following effect on other sectors, not only in India but also in all the countries encompassing the different continents. To

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date, the COVID-19 pandemic has been the most devastating world global health crisis that has loomed out from nowhere suddenly and has been the most severe attack on humanity, probably after the World Wars or the past pandemic experiences mankind has experienced. Nevertheless, amidst the onslaught of foreign media and the human rights agencies and forums, India has taken appreciative control and charges with the 21-day lockdown to prevent the grave situations as some countries across the globe experienced (Gupta & Madgavkar 2020: Mckinsey Report). The response of the Indian government in tackling the COVID-19 pandemic had been immediate, but there were also criticisms of strategic planning and action issues. The irony lies in the fact that the seasonal workers, migrant workers, and all other types of workers have been roughly hit by the sudden declaration of the unexpected lockdown. The announcement of the lockdown and a time limit of four hours to leave resulted in a huge outflow of migrant workers to their native villages and a sense of chaotic hustle (Dandekar & Ghai 2020; Singh et al., 2020). This reverse migration population of these migrant workers was not a small one (includes short-term seasonal, circular, and long-term employment) and was around 12.8 crores (Vasudevan, et al., 2020).

This workforce's tireless and stranded journeys towards their hometowns amid the public transportation lockdown have raised humanity-related questions. Migrant workers represent one of the marginalized and overlooked sections of the society (Parth, 2020) that the capitalist forces of the country have oppressed. The pandemic has ripped apart the existing perils of these workers and worsened their situations as the employers and the middlemen had virtually abandoned them. There have been instances when the migrant workers have been unfairly pointed as the carriers of the spread of the disease (Lau et al. 2020). Such shocks have adverse consequences as economic unsettlement, interruptions in livelihoods, occupations, and even psycho-social displacement. Many migrants lost lives due to lack of food, suicides, physical exhaustion, accidents, and lack of medical assistance (Guha et al., 2020). Still, they need empathy and concern as a sidelined section of the labor segment (Hargreaves et al., 2019).

An in-depth examination reveals that most of India's internal migrants belong to the intra-district workforce category and the percentage of interstate migrants is less in number. Kone et al., 2017 reveal that such migration has been mainly due to the immobile nature of the social security advantages and the scarcity of livelihood options at the residence regions. Many migrant workers are essentially temporary or seasonal (Keshri & Bhagat, 2012). Furthermore, a segment of the migrant workforce is working in the informal sector. This is a weak and susceptible segment because these workers are not under the coverage of the minimum workplace entitlements and social security aspects (Government of India, 2017). Overall, there is a lack of sequenced, updated data on the mobility and the workplaces of the migrant, which is a challenge, making formulating policies difficult.

LITERATURE: THE MIGRANT WORKERS AND THE INFORMAL SECTOR

Over the years, there has been a reduction in the formal workforce and the informal sector's rapid growth-the latter does not come under the legal framework of secure wages or social benefits. This vast segment of the informal workforce is poverty-ridden, and marginal and scanty information is found about them (Agarwala, 2006). The most succinct definition of the informal sector has been given by Portes et al., 1989 that can be precisely stated that this sector participates in the production of goods legally. However, they are associated with activities not under the monitoring process or the directives of workers' legal framework, health and welfare, and related laws. In this context, informal workers are said to be self-employed with some employees under them, and the casual workers—the latter work through intermediaries in organized, formal, or informal sector firms. Furthermore, the definition also consists of workers who work at their residence or in various locations. This is a more popular definition and has been made functional by the National Sample Survey Organisation of India (NSS) in 1999 in elaborating on employment and unemployment situations.

INTERNAL MIGRATION OF THE INFORMAL WORKFORCE

Malhotra & Devi, 2016 has cited the reason for male migration as unemployment. The research has concentrated on the literature review of the internal migration of workers in India. Skeldon (1986) pointed to two key features: migration is from rural to urban regions and is long-term (Chakroborty and Kuri,2013). Kundu (1986) had also found that the rate of migration has decreased in rural and urban areas, which may be due to gaps in per capita output or labor productivity. Kundu and Gupta (1996) discussed the reduced inter-state migrants (1961-1981) except in some states. There has been a drop in rural migration because of biases against migrants from other states and the lack of inclusive policies (Kundu, 2003). Also, the informal sector has progressed over time, consists of trade and economic activities, and attracted workers (Bhattacharya, 1998). The migration to the urban areas is an offshoot of economic advancement (Bhattacharya, 2002). Das and Saha (2013) had discussed that workers also migrate from lesser developed states to more developed states.

Research revealed that migration occurs from economically backward and financially weak regions (Mitra and Murayama; 2008). The migration rate increased from the 1980s to the 1990s. A positive correlation was found between inter-state migration and employment (Bhagat and Mohanty, 2009; Singh, 2011). The migrant workers' income has been impacted by the savings and remittances and has improved the quality of the living standards of the migrant workers and advanced the regions of origins. (Srivastava, 2009). The push and pull factors that propel the migrant workers' movement are deeply researched (Kohli, 2010; Chakroborty and Kuri,2013). Several push reasons were highlighted for the migration of the workers: poor wages, lack of livelihood options, and an increase of landless rural workers. The pull factors also attracted workers to the green rural belts (like Punjab) for agricultural work, fair wages, and high demand for workers.

INFORMAL WORKERS AND THE SECTOR

Informal work has been related to less development (La Porta and Shleifer, 2014). The COVID-19 has impacted adversely on the informal workers and led to heavy economic losses. The reality is that workers in the informal sector have low skills, receive low wages, and have virtually no access to social security schemes (Loayza 2018; Perry et al. 2007). They reside in unhygienic and dismal conditions resulting in the spread of diseases and infections (Chodorow-Reich et al. 2020; Surico and Galeotti 2020). These workers are ignorant and unable to afford the government's social distancing initiatives and accelerated the pandemic's spread (Loayza and Pennings 2020; Nguimkeu and Okou 2020). Studies reveal that the informal sector has a lower productivity level, less-skilled labor employed, lesser capital invested, and inadequate access to funds, services, and the markets (Galiani and Weinschelbaum 2012; Loayza 2018). Nevertheless, the informal sector is the support system when the formal sector downsizes employees (Loayza and Rigolini 2011). The informal sector is a critical sector of the Indian economy. According to the National Council of Applied Economic Research reports, the informal sector is not systematically organized. Still, it has provided 62% of Gross Domestic Product (GDP), 50% of the national savings, 40% of national exports, and 55% of the total employment (ILO, 2002). Fields (2009) and De Mel et al. (2010) regarded the informal sector as a stepping stone towards work in the formal sector in the urban regions. A much earlier definition of the informal sector had been given by ILO (1972). It characterizes the sector as easy to penetrate, dependent on indigenous resources, family ownership of some establishments, small-scale levels of operations, and the usage of labor-intensive methods. The National Sample Survey Office (2012) highlighted in 2009-2010 that around 71% of the workers in the rural regions and 67% in the cities in the informal sector. It was found that the majority of the informal work was focused on the production, wholesale, retail, civil construction work. Shonchoy and Junankar, 2014) had described the informal workers in the urban regions as the small traders, artisans, self-employed, and daily workers in both the formal and the informal sectors. In developing countries, the predominant dominance of the informal sector is seen (La Porta and Shleifer 2014). One of the primary reasons the small firms have grown and operated has been to avoid tax factors and the government regulations for the formal sector (Basu et al. 2012; Demenet et al. 2016). There has been a varied body of research substantiating the consistent growth of the informal sector (Maloney, 2004; Günther and Launov 2012; Magnac 1991), the informal aspects of the sector (Azuma and Grossman 2008), and the informal employment dimensions (Günther and Launov 2012; Kucera and Roncolato 2008; Lehmann 2015; Sapkal and Sundar 2017). There has been other related research on the comparative perspective of both the formal and the informal sectors and the constraints of funds (Woodruf and McKenzie 2006; Raj and Sen 2015) and cost-cutting (Chen, 2012). Exploring the factors of informality has been a challenge due to the existence of various definitions provided (Lehmann 2015). From the point of view of the informal workers, the issues raised are whether the workers have opted for informal work by their will (Kucera and Roncolato 2008) or have been forced to choose (Perry et al. 2007; Günther and Launov 2012). Another viewpoint is that the informal nature of work is a means to exploit the underprivileged and the backward (Breman 1996). Maiti and Sen (2010) have further grouped this approach aptly to manipulate and have capital growth.

RESEARCH OBJECTIVE

In this exploratory research, the pivotal emphasis is on the informal migrant workers who have either migrated inter-state or intra-state to search for livelihood opportunities. There are varied reasons for this type of migration across the nation. Labor migration implies labor movement towards districts, states, and regions where industrialization has been developed (Encyclopedia Britannica). Such systematic, planned movements can be temporary, and the individuals usually do not become the residents of their workplaces. An investigation of the growth patterns in regions shows that the policy-makers have also supported this mass movement and collection of the migrant workforce in the developed areas and the fringe areas reaping the benefits (Srivastava, 2009). India's significance of labor migration cannot be overlooked because India stands as the second country globally with above 30 million internal migrants (Handral et al., 2018). The Annual Report: Periodic Labour Survey 2017–18 published by the National Statistical Office (2019) estimated that India's inter-state migration was around 9 million yearly between 2011 and 2016. These are the majority of the impoverished workers who contribute to the national income too. They belong to the groups of wage hunters, gatherers, and freelance workers, according to the research concepts of Breman (1994, 1997).

For this informal migrant workforce, employment is the salient cause of migration. The other reasons for migration are better employment contracts, satisfactory social associations, and efficient transport networks (Bagchi & Majumdar, 2011; Baily, 2011). Research also demonstrates that seasonal or temporary migration behavior is observed among poor rural families or individuals (Haan, 2011; Keshri & Bhagat, 2012). The recruitment of the migrant workforce has strategic reasons from the employer's perspective of cheap wages and convenient monitoring, even under challenging situations. Migrant workers do not follow the requisite standards of the minimum wages laws in top workplaces. They can be made to work for long and flexible hours. Unfortunately, these workers work in harsh and adverse circumstances and reside in unhealthy and unhygienic conditions. Due to lack of awareness, education, and unfamiliarity in the different work cities, they cannot access the government's other health and family care policies for the underprivileged workers (Sanyal & Maity, 2018).

The Government of India had appointed the National Commission for the Enterprise in the Unorganised Sector (NCEUS) in 2004. It had submitted a detailed report on the Indian informal sector. Some of the Commission's salient findings were: the informal organizations' scale is low, there is virtually very little or no division of the labor or the other factors of production. The organizations are mostly family unit structures, and even the manpower employed is casual and personal in their associations to these closely-knit enterprises. The accounting and expense systems are not streamlined; the owners arrange for funds from their sources and are accountable for the business's positive or negative outcome (NCEUS, 2006).

An analysis of the Indian Informal sector's literature discloses that the sector has been perceived as under the capitalist system's influence that has no concern for the labor (Breman, 1985). Additional research also found that the informal sector's rise has been triggered by the liberal policies of the Indian economy and the inability to generate jobs in the formal Indian industry (Nagaraj, 2004). Even researchers had described that the informal sector's spurt had been due to the growth of the informal sector related to the country's economic changes (Sanyal 2007; Chatterjee, 2008). The informal sector gives temporary employment scope to the migrant workers (Todaro, 1969; Fields, 1975) and supports economic development (Bhattacharya, 1993). Even Meng's research (2001) found that both the wage-earner and self-employed groups have distinctive roles in beckoning in-migrants, the latter being the preferred choice. Migrants who possess a higher human capital become self-employed, leading to a differential between the informal sector and wages. Tiwari (2006) studied around 1500 informal workers and revealed that the non-manufacturing segment could generate employment and lure more migrant workers. This research has also been supported by Sivananthiram and Ratnam (2005). Their study highlighted that 97% of the Indian workforce is working in the unorganized sector since the organized sector's absorbing capacity has its limitations. The Census and the National Sample Survey Organisation (NSSO) collected statistical data on labor migration in India. For this research, data has been referred from migration (NSSO) 64th Round (2007-08) and the Census India, 2011 on population and migration data (ICSSR: Social Science Data Repository (2016, March 16). These studies may underestimate some migration movements (temporary, seasonal, and circulatory migration) due to scarcity of data and analytical issues. Another drawback of these data is that the focus is on population movement trends and not worker movements.

A close study of the government data on formal and informal workers and the sectors reveals stark facts about the significant part played by these informal workers.

Table 1. Share of formal/informal sectors across broad sectors to GVA (in percentage)

	2017-18			
	Organized/ Formal	Unorganized/Informal of Which HH		Total
Agriculture, Forestry & Fishing	2.9	97.1	95.2	100
Mining & Quarrying	77.5	22.5	22.5	100
Manufacturing	77.3	22.7	12	100
Electricity, Gas, Water Supply & other Utility Services	94.7	5.3	5.3	100
Construction	25.5	74.5	74.5	100
Transport, Storage, Communication & Services related to Broadcasting	13.4	86.6	55.8	100
Financial Services	52.3	47.7	39.6	100
Real Estate, Ownership of Dwelling & Professional services	88.1	11.9	0	100
Public Administration & defense	100	0	0	100
Other Services	52.1	47.9	24.3	100
Total GVA at Basic Prices	47.6	52.4	43.1	100
* HH= households excludes quasi-corporates				
* India treats unincorporated enterprises maintaining accounts as quasi-corporates.				
Data Source: Murthy (2019), Measuring Informal Economy in India				
(Original Data: National Accounts Statistics, 2019)				

From table 1, it is evident that around 52.4% of the entire workforce belongs to the informal sector, and it is a substantial figure because it is 258,992,972. It implies that about 26 crores of these informal workers have been affected by the pandemic in India. This figure is alarming, considering both the formal and informal sectors complement each other in the economy's overall growth.

In the manufacturing sector sphere, the data from the Annual Survey of Industries (ASI) of 2017-18 (comprising the factory data) shows that 12.3 million workers are employed in the manufacturing sector. When closely placed with the Periodic Labour Force Participation survey 2017-18, this data reveals the surprising gap between the formal and the informal sector. Overall, the informal manufacturing sector contributes 40% to 70% of the total production (Kumar& Sharma, 2020).

A scrutiny of the Worker Population Ratio (WPR) –the percentage of persons employed considering the total population, demonstrates the deeper extent to which the formal sector depends on the informal sector and the workers. An average calculation throughout India reflects that 33% of the population has employment periodically. Ironically, two-thirds of the population has been dependent on the former, excluding the dependents on this one worker who has lost his job. The above two tables depict the critical role played by the workers of the informal sector. Though the informal sector has been discriminated against unconsciously or purposefully over the decades, one must understand that the formal sector has its limitations in generating a high employment level for unskilled or semi-skilled laborers. The informal sector employs this population of the workforce. Nevertheless, the irony lies in that the unorganized sector's jobs and projects originate from the formal sector, which becomes a complementary mechanism (Kannan & Papola, 2007). The data demonstrates the slow growth of the formal sector. This had become a significant handicap in giving employment. In a way, the informal sector plays a strategic role in the employment generation, and the present situation reflects a symbiotic association between both sectors (Chen, 2007).

Table 2. WPR (in percentage) according to usual status (ps+ss) and CWS during 2017-18 (All - India figure)

	WPR in	
	Usual status (ps+ss)	CWS
	Rural	
Male	51.7	49.6
Female	17.5	14.8
Total	35	32.6
	Urban	
Male	53	51.7
Female	14.2	13.3
Total	33.9	32.9
	Rural + Urban	
Male	52.1	50.2
Female	16.5	14.4
All- India Total	34.7	32.7

* In usual Principal and Subsidiary status (ps+ss), if a person has engaged in any economic activity for a period of 30 days or more during the preceding 365 days, the person is considered as employed. In current weekly status (CWS), a person who has engaged in any economic activity for at least one hour and at least one day in the last seven days is considered as employed.

Source: Periodic Labour Force Survey (PLFS) 2017-18, Ministry of Statistics and Programme Implementation, Government of India

It has to be understood that the extreme life-ravaging conditions delivered by Covid 19 are incomprehensible and would take many years to reveal. Right from the inception of the first pandemic wave, there was a sequence of reactions related to demand-supply shocks, loss of incomes, voluntary or forced mobility, and the reverse migration of workers. An insightful study of Aziz Premji University study (2021) demonstrates the shocking data about the sectoral structure of India's non-farm workforce.

The Table 3 provides the total number of workers in the key sectors and the ILO's grouping based on the risk categorization due to COVID-19 (ILO 2020). The informal workers in the medium to high-risk industries make the most affected and underprivileged segment of the labor force. In 2018-19 there were 125 million such workers, and in the city and urban regions, they consisted of 45 percent of the overall employment. The percentage of this endangered urban workforce is grouped as high as 12 percent and describes the gravity of the Covid-19 circumstances throughout the lockdown and after the lockdown.

Aziz Premji University's CLIPs study (2021) was conducted across 12 states in India and is indeed impactful in the findings. Two thousand seven hundred seventy-eight workers from the informal sector were interviewed, it was revealed that 69 percent had been jobless during the lockdown (April-May, 2020). Even in September- November, 19 percent of these workers continued to be unemployed. Twenty-six percent of the unemployed group from February continued to be unemployed; 55 percent were employed

Table 3. Distribution of workers (millions) by employment type and sectors with corresponding Covid -19 risk Classification

ILO Classification of Risk to Output	NIC 2008	Industry	Casual/Daily Wage Labour	Self-employed	Salaried	Total
Low to medium	(01-03)	Agriculture	46.8	141	2.3	190.2
Medium	(05-09)	Mining	0.7	0.2	1.1	2
High	(10-33)	Manufacturing	7.6	24.8	26	58.4
Low	(35-39)	Electricity, Gas & Water Supply	0.1	0.5	2.1	2.7
Medium	(41-43)	Construction	46.7	6.3	3.2	56.2
High	(45-47)	Trade	1.9	36.3	13.9	52.1
Medium- High	(49-53)	Transport	3.1	10.3	10.3	23.7
High	(55-56)	Hospitality	0.9	4.7	3.4	9
	(58-99)	Others	2.4	15.8	54.2	72.4
		All	110.4	239.9	116.4	466.7

Sources and notes: PLFS 2018-19 and ILO (2020) Covid-19 Risk Classification
Source: Azim Premji University,2021

again after lockdown, but the rest 20 percent had no recovery or were still jobless. The higher percentage of the informal workers were in the no effect continuum. According to the same study, nearly 20% of the informal workers were unemployed during the lockdown period (first wave onwards- Oct-Nov, 2020), post-lockdown there was a steep increase of employment of about 80% till the emergence of the second wave.

HOW DID COVID-19 IMPACT THEM? LONG AND SHORT-TERM IMPLICATIONS ON THE MIGRANT WORKERS AND THE INFORMAL SECTOR:

There are two significant impacts of COVID-19 on the migrant workforce and the informal sector: the immediate turbulence and the inhuman sections they may have faced or have been facing. The second one is deeper and has almost long-term implications due to the informal sector's scaring damage. The unanticipated exodus towards the native villages and towns by this perplexing workforce had demolished the very objective of social distancing and quarantine by flooding through streets in a state of bewilderment. The point of moving like this in forced unity became an act of revolt (Bandyopadhyay, 2020). To sum, extreme exhaustion and hunger took away their lives and not Coronavirus (Sarmin, 2020).

After the initial bottlenecks, the government quickly set up the empowered groups of government officials to develop remedial policies, packages, and procedures, namely, the Empowered Group on Economic and Social Welfare. The challenges are insurmountable because, as per the committee, the nature of the migrant group is highly unstructured (Vishnoi, 2020). Moreover, the unannounced unsettlement of the migrant workers was anticipated to have severe consequences because, for the first time, the workers realized the negative aspect of distance and how it has created an exacerbating reality for them: “Coronavirus has taught workers that distance matters,” has been the stark truth shared by the eminent Professor & expert in population studies, S. Irudaya Rajan- Centre for Development Studies, Thiruvananthapuram, India (Narayanan, 2020). Relief and assistance were provided by the country’s social and non-government agencies of the country, and the government of India had announced around 350 schemes to alleviate the suffering of the affected migrant workers (COVID-19 Government Order Tracking, 2020). The main measures and steps contained: the arrangement of the transportation for the migrants, the arrangement of shelters for stay, rest, food and medical aid on the way for workers who were walking to reach their destinations, instructions to the employers not to deduct compensation for the non-working period.

Mental health is another dimension in such a background that cannot be overlooked anymore. From the Indian perspective, mental health is associated with stigma (Rajan et al., 2020). Firdaus (2017) highlighted that a particular demographic group of daily wage workers (with single marital status, low skills, and lacking basic literacy) suffers from psychological issues. Additionally, this group is forced to live in squalor and dismal conditions for many years as migrant laborers. Hence, the pandemic’s impact could result in more acute mental health conditions, a sense of panic, and a lack of a social support system (Choudhari, 2020), depression and desolation (Shastri 2020), a sense of neglect and worry for family members’ safety (Kumar et al. 2020).

From a macro perspective, the scenario was disheartening with the ban on travel and the lockdown periods- all these had catalyzed the already impending recession. According to the Periodic Labour Survey (2017-18), 56.4 million jobs (manufacturing), 54.3 million jobs (construction), 37.3 million jobs (retail trade) have been critically affected. Due to the pandemic outbreak, the health infrastructure has to invest now vigorously. 238 million of the workers are self-employed. The casual status workforce was about 112 million and collectively combined to make 350 million informal workers of India. Two-thirds of the informal workers do not earn a minimum of Rs 375 daily wage recommended by the national minimum wage to adjust the essential household requirements at 2017-18. This data is as per a January report submitted in 2019 by a government formulated committee (Kannan, 2020).

Measures to Revive the Informal Sector

The government had been fast to request all employers’ organizations of the public and the private sector not to fire employees, with a particular emphasis on the migrant, informal workers:

Rajsinghot, K., Joint Secretary of Ministry of Labour & Employment, had advised in her letter to all the employers of Public and Private Establishments:

In the backdrop of such challenging situation, all the Employers of Public/Private Establishments are advised to extend their coordination by not terminating their employees, particularly casual or contractual workers from the job or reduce their wages. (Rajsinghot,2020)

The government has also started the mapping of the migrant workforce to ensure the appropriate relief measures. The mapping’s objective is to develop a database of the migrant workers for a well-focused relief sum that would genuinely assist the transient workforce (Jha, 2020). The migrant data has been strategically decided to be obtained from three actual sources: relief camps operating in all districts, employers’ work-site, and the areas where these workers live in groups (Varma, 2020).

Excerpts from the letter to the Regional Heads: *"it is reiterated that data.....is urgently required, so all Deputy CLC/ Regional Labour Commissioner (C) / Assistant Labour Commissioner (C) as per the list enclosed...."*

This crucial data has to be handed over to various non-governmental organizations as well as ordinary firms. The data will be examined whether the migrant workers possess bank account details or those opened under the PradhanMantri Jan Dhan scheme and the Indian residential identity number (Adhaar card). Another criterion for categorization would be based on the occupations' nature (14 lists of occupations were generated). Furthermore, the government had presented the Supreme Court's specific measures in response to petitioners' petitions related to the migrant workers and the lower strata of the society affected by the lockdown. The government had announced a comprehensive relief package of Rs 1.7 lakh crores, also termed as the Pradhan Mantri Garib Kalyan Yojana, where the migrant workforce and other deprived sections were to be provided with 5 kg food grains, 1 kg pulses, and one gas cylinder free of cost for the next three months. The construction workers were to be given financial support; states were to take care of en route migrant workers, provide them shelter, food, and medical facilities, and facilitate the quarantine process of around 14 days (Agarwal, 2020).

Long-Term Impact

In a way, the immediate impact would lead to long-term implications for the migrant workforce of the informal sector. In some time, they will undergo the trauma of losing their unsecured job that was a source of income, lack of support involving the COVID-19 schemes, accommodation programs, and access to the essential physical resources for survival, and finally being stranded in a condition where migration for livelihood becomes a bleak expectation (Liem et al., 2020). It has to be remembered that the majority of the migrant workers of the informal sector who have been already working in inhuman conditions will have little or no job alternatives in the near future besides dwindling savings and constraints to move inter or intra-state (Gavlak, 2020) and this situation can be made more critical if the organization shuts down. The flow of income becomes unstable; the general well-being and related assistance cannot be availed after a point, leading to other life challenges (Nyein, 2020. Instead, the informal migrant workforce's database should be used to reach out to them through social organizations, government agencies, and non-government organizations to help them physically and psychologically rehabilitate and prepare them for the new innings in livelihoods again. Without categorization, all migrant workers should be brought under the purview of all COVID-19 associated welfare policies and measures (unemployment pay till new job, medical assistance for self and dependants, ration and grain coupons). Moreover, the struggle of the migrants will intensely affect the socio-demographic and economic patterns of the nation. At a micro-level, the worker's family's maintenance needs to a standstill, impacting the growth of native place of origin due to the migrant groups' earnings.

DISCUSSION AND POLICY IMPERATIVES

Besides the relief packages announced, the government has also directed the State Disaster Response Fund (SDRF) to provide food and shelter to the workers after INR 29,000 crore had been allocated. The State governments, as discussed above, were instructed to set up camps and compulsorily investigate the health conditions of the reverse migrant workers (Newsclick Report, 2020).

Some haunting questions are being asked on the disastrous pandemic outbreak in India and the chaotic condition of the migrant workers of the informal sector. Firstly, all these years, was there no organized and systematic continuously updated database of the different migrant workers? The second serious question arises, why has there not been a residential, welfare, and psycho-social support system for this vulnerable segment from the beginning and the efforts to create awareness for them? Was a COVID-19pandemic necessary to realize the persisting perils of this sector of the workforce? Naturally, the imminent strategic focus is on improving the morale of these thousands of abandoned, fleeing workers and, above all, reinvent and rejuvenate the informal sector with single-minded dedication. Lessons learned from this crisis are painful but priceless. It relates that policy-makers, employers, related agencies, and even whistle-blowers neglected the particular sector and workforce's vital role. Only when the real crisis started - voices emerged and penned articles, research papers, and media lashed the government with human rights issues for the migrant workers. There are mainly light industries in the villages, namely food processing, as the country has a high production of fruits and vegetables. The government has to understand that there will be many migrant workers who would not come again to the cities for work because of betrayals and jolted morale and need to be rehabilitated in the native rural regions. Hence the immediate focus as the pandemic subsides should be developing a start-up ecosystem, the supply-chain dynamics, and the overall infrastructure (electricity, water, roads, and other networks) of the rural areas. If this considerable chunk of the migrant workers leaves the current workforce population, the labor participation rate will show an alarming drop (Sengupta, 2020). However, this is a comparatively long-drawn process.

Another point raised was the disconnect between these migrant workers' troubles and the government's relief packages because the immediate employers do not provide facilities, amenities, and financial support. The lack of a structured database of these workers and the identification documents were based in their native hometowns and villages. A helpless statement of a worker revealed the intense challenges present: "The contractor whom I work for said he can't pay me anything as his hands are also tied."I've been told there might be no work for few months, leave aside any money coming…..I don't have any documents? Who gives you documents?" (Sharma, 2020).

In the future, along with developing the workers' database, the immediate employers must be identified. Government programs that have to go to them have to move through these employers after being monitored by the informal labor agencies, much like the formal sector. Critics of labor research are asking, should not this have been done years back? Khera (2020) has rightly suggested other measures to alleviate immediate migrant workers' challenges: the role of the MNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) for the migrant workers has to be taken into serious consideration. The advance payments of three-month pensions can be disbursed during April 2020-this pension is applicable for senior citizens, widows, and disabled people). The government should provide ten-day wages for the cardholders at the Panchayat Bhawans. The question has been raised that the workers' future would be in a precarious condition post-COVID-19 period. So, the MNREGA workers should be provided job security for a minimum of 20 days a month once normalcy returns. However, it is forecasted that as the gradual economic revival takes place, the database of these workers will reduce as they get absorbed in typically generated jobs.

It is clear now that the critical role of the migrant workers in building the country's economy cannot be taken casually, and they have to be supported to revive the collapsed economic growth. The declaration of the One Nation, One Ration Card, for instance, has been appreciated. In implementing this, technological tools would be used to attach the dependents of the worker. The accommodation unaffordability factor has been considered, and the government has decided to proceed with affordable rental housing societies for the migrant workforce in the cities.

Even the state governments have been given the right to use the disaster response fund to make arrangements for food and shelter for the migrant workers (a total cost of Rs 11,000 crore to be used). Special credit facilities (Rs 5000 crore) to be made accessible to around 50 lakh street vendors. The Finance Minister has committed to Rs 10,000 as the starting working capital for the street vendors (FE Online, May 14, 2020)

The hard-hitting doubt arises that without a sound database of the migrant workers, where is the guarantee that the benefits will reach the right groups? Even other measures announced are time-taking and cannot be implemented immediately: the ration-delivery process can be completed by the first part of 2021. The credit facilities cannot be enforced immediately because of procedural loopholes. Nevertheless, the relief announcement of free food grain supply for two months to about eight crore migrant workers without a ration card (outside the National Food Security Act) has generated relief to a great extent. The deteriorating situation of the migrant workers had no doubt introduced a host of policies and schemes to benefit this segment of the workforce. The migrant workforce has contributed to 10 percent of India's Gross Domestic Product (GDP); sadly, there is no record of where migrants reside, work, and the process by which they are hired. The Finance minister admitted this fact in 2020 during the first wave of the Covid-19 outbreak. The primary responsibility of the government was to develop a detailed database of the unorganized database, which would cover the migrant workers at an approximate cost of Rs 704 crores. Additionally, the government had launched a detailed nationwide survey covering the initial conditions of the migrant workers (February- March 2020) before the pandemic, the conditions during the peak in September-October 2020, and the conditions in the current situation. This extensive study would aid in formulating future, sustainable policies for this vulnerable section of the workforce.

There are very few legal frameworks for this overlooked group of workers. The Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 exists; however, its provisions apply to those workers hired through contractors. This act has been recently included under the Occupational Safety, Health, and Working Conditions (OSH) Code, 2020. The code entails proper working conditions, minimum wages, grievance handling mechanisms, exploitation, and social security measures. Under this code, all categories of organized and unorganized workers, including the migrant workers (ten or more inter-state migrants). The Niti (National Institution for Transforming India) Aayog has developed the National Action Plan for Migrant Workers. It highlights the mobility of voting rights, health and treatment in the city, education, and housing facilities as the key thrust areas for improving the working and living conditions.

The Second Wave and the Post-Pandemic Phase for the Workers

The second wave was far more devastating in the consequences. The rate of infections was three times more than the infections during the first wave. There was a total collapse of the health infrastructure with a double mutant in some states. Post-lockdown, the economic and trade activities were resuming, and 64 percent of migrants had returned to the cities of work by February 2021 (Gulati et al., 2021). There have been some studies conducted related to migrant conditions in some states in India. It was found that the situation was grave, and the workers' households were struggling for physical survival and hunger. This population was completely dependent on the state-managed Public Distribution System (PDS) and the various livelihood schemes. The implementation of the schemes was flawed, and there were delays in the payments from these schemes. The return of the migrant workers in their native villages and their lookout for work reduced the wage rates of those places. Realizing the challenges of work options, these migrant workers again returned to the cities for jobs (Bera, 2020). As discussed before, the government had introduced a host of schemes and relief packages for the migrant and related workforce: an additional packet of subsidized food grains, free gas distribution, cash transfers. Furthermore, the central government had introduced employment opportunities in the rural regions in the select states with a high population of the reverse migrant workforce. The reality was stark: around eighty-five percent could obtain the food grains, but only 12% had received them during November-December 2020. Also, only 8% of the migrants received employment under the schemes, and the skill-based training programs were availed by 1.4% of migrants at their native places of residence.

The economic development four decades back led to the interstate movement of the workforce due to better financial prospects. This should have made the food benefits, healthcare, and other social security aspects accessible to the migrant workers by the then prevailing governments. Ironically, it was not implemented, and today the lack of the migrant workers' data and official statistics reflect the gross shortcomings. The Pradhan Mantri Jan-Dhan Yojana, a financial inclusion program especially for the lesser privileged, has been enshrouded by duplication and verification issues that stem from the migrant workers' lack of official identification. The role of digitalization could enable the establishment of a self-registration process for the migrant workers and facilitate the digital transfer of funds. Chaudhary (2021) had given an apt illustration of the mobile payment model (M Pesa) in African countries to transfer funds to the financially low classes. Such an application based on the Unified Payments Interface system can be developed in India. Furthermore, the government of India should aim to remove the rigid and structured division of the labor market into formal and informal sectors and consider the entire labor market as a comprehensive and collective unit. The concept of the unitary labor market is the need of the hour (Yadav and Priya, 2021). To avoid exploitation and malpractices, the employer must administer the wages and benefits packages post-pandemic.

CONCLUSION

Before the pandemic, there was no proper awareness of the plight of the migrant workers, more so because they had been taken for granted. It was only in this seething crisis that media and other stakeholders sat up and voiced their opinions; hence there should be an awareness created about the role of these workers in the development of the country's economy, and this can be done by promotions, media, and reports by all sections of the nation. The indirect but critical way they are entwined with the formal sector and its development is now open. More research and articles on related issues are coming into the public domain regularly. This research had also tried to demonstrate the irreparable dent inflicted on these workforces' morale, trust, and humble aspirations with which they had arrived in search of their livelihoods. Future research should focus on qualitative studies, preferably in-depth interviews, to probe into the aftermath of COVID-19, plans, and rehabilitation measures. Additionally, there should be more immediate measures formulated and implemented that can alleviate the migrant workers' precarious conditions with time, to a large extent, if not entirely. Undoubtedly, the pandemic had harshly pointed out the picture of pathetic psycho-social conditions and the non-existent policies ripped open in the sudden outbreak. Moreover, an evaluation reflects a gap in the social security measures across the states in their social security measures that create a complicated and helpless scenario. The institutional framework has shown hurdles in properly being used (Srivastava, 2020).

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Chapter 8
Implications and Asymmetries of the Knowledge Society:
An Analysis of 82 Constructs

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ABSTRACT

The term knowledge society brings together many of the transformations that are taking place in today's society, and its definition serves as an indicator of these changes. The related concentrations or asymmetries that arise from the phenomenon are also the subject of analysis and dispute. Its development and scope have been uneven, constantly incorporating new meanings to the existing terminology, hence the need to analyze 82 concepts of the knowledge society through a frequency count in Google Scholar, with a subsequent categorization saturating in six dimensions, in order to analyze their framing. The methodology used a higher-order association, establishing the most significant combinations and weightings. From these results, the concept of the knowledge society is defined by the dual economic-social category, according to its frequency of use in Google. This shows economic influences as a determining factor in the knowledge society, engendering processes far from the common good or the general interest.

INTRODUCTION

Knowledge progresses although its acquisition is neither linear nor equal for everyone. Nor is it a new phenomenon since the existence of an intellectual bourgeoisie is as old as history itself and is common in all societies. It is enough to consider a list of leading magnates or politicians to understand the relationship between their origins and their success or the similarity between their political and business doctrines. In other words, elitist schools of thought available to a select few generate extensive networks for the commodification of knowledge. Similarly, the aristocracy of the church is an elite that has traditionally benefited from the tools of the transfer of knowledge. Currently, cognitive capitalism is democratizing the character of exclusivity for the benefit of private interests through the processes of appropriation

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and privatization of elements of the common good, such as the land and its natural resources, which are transferred to other dimensions such as knowledge itself or culture. These are often mistakenly considered to be of open access but, in reality, remain of restricted use. A clear example of this is the Internet, a tool that masquerades as one of necessity and modernity but whose full use and benefit is associated with the economic status of each individual, that is, the wealthier the users, the greater their enjoyment and the coverage of their needs. The majority of the public are, by contrast, subject to the exploitation of the data they generate, being ultimately mere spectators that increasingly fall under the influence of the empire of technological practicality that controls this knowledge with impunity (Morozov, 2015; Barassi, 2020). According to the philosopher Byung-Chul Han (2018), *"Macrodata has made thought superfluous because if everything is countable everything is the same … We are in the middle of dataism: man is no longer in charge of himself but is instead the result of an algorithmic operation that controls him without him realizing it. We see it in China with the concession of visas according to state data, or in face-recognition technology."*

Once again, the debate on free access to knowledge arises, which, beyond being desirable, comes to incorporate the inevitable conflicts of private property ownership. Knowledge, ranging from aerospace technology to a large proportion of technological improvements, is not shared equally, but is agglutinated in a few countries and a minority of hands, exemplifying the clear pattern of a commodity that appears to be free and universal, yet is quite the opposite. Further examples come from the armaments or chemicals industries or indeed the agri-food sector, which develops agroecology products such as transgenic seeds; all pivot around the concentration of knowledge through the use of the tools of accumulation by dispossession. One of the facilitating elements of the creation of proprietary knowledge are free trade agreements, which are constructed through legal processes that exert pressure and domination within states (Ziegler, 2013; Luque & de Pablos, 2016).

At present, knowledge and its management is one of the greatest sources of value production, innovation and inequality. Its circulation, despite being asymmetrical, has been democratized through new technologies and an information society that is dependent on them. From this melting pot of possibilities, society has accentuated the possession of knowledge, applying one of the greatest mantras of military geopolitics: "to know is to win". As Stiglitz (2015, p. 40) contends, "We *can consider that, generally speaking, the 'innovation system' of an economy runs from basic research, usually funded by the government and sometimes by a monopoly authorized by the government and produced by universities and government research laboratories, to applied research, which sometimes develops from these basic ideas and sometimes perfects and develops prior knowledge.*"

One of the greatest challenges facing today's society is the formation of existing forms of knowledge production from new technological practices associated with scientific knowledge, together with the diversification of economic processes and changes in social, economic and political relations. Let it not be forgotten that science also involves a great deal of corruption and elitism, which condition the transfer of knowledge in favor of vested interests. Consequently, it is clear that regulation or so-called green-washing processes are not sufficient to eliminate the existing asymmetries or knowledge gaps, rather the solution must come from a re-coding of principles and values (many of them imposed) in favor of the general, non-economic, interest (Luque, 2018; Johns & Oppenheimer, 2018). The accumulation of knowledge and its access also inherently generate high levels of poverty and precariousness through associated processes of expulsion and degradation, aspects that have been widely discussed in the academic literature (Naredo, 1999; Harvey, 2007; Sassen, 2015; Laval & Dardot, 2017; Han, 2017).

Another great dilemma is the democratization of knowledge. The previous scientific revolutions, such as those of the seventeenth and eighteenth centuries, were an extraordinary advance that benfitted society as a whole for more than 300 years (Balderas, 2009). The same cannot be said of the current reality as knowledge is concentrated at certain latitudes, resulting in large migratory flows from areas of precarious or undignified employment. For example, more than 6,500 migrant workers[1] from India, Pakistan, Nepal, Bangladesh and Sri Lanka have died in Qatar since it won the right to host the World Cup 10 years ago. There is also scientific migration[2] toward areas of concentration of knowledge in elitist business schools, universities with vast resources, or certain niches such as those created in Silicon Valley (Varga, 2000; Morozov, 2021). According to Francisco and Bergoglio (2015, p. 95), "the culture of relativism is the same pathology that makes one person take advantage of another and treat them as a mere object, pushing them into forced labor, or making them a slave to debt".

In view of these issues, the present study makes a critical and proactive analysis of the construct of the knowledge society and its facilitating elements. Specifically, it seeks to discover: i) the elements that make up the processes framed by the knowledge society, their evolution and related phenomena; ii) the depth of the dimensions that make up each construct and their impact in Google Scholar in order to demonstrate the co-responsibility between governments, supranational organizations, companies and the public; iii) the existing trends in the processes of the information society.

1. THEORETICAL FRAMEWORK

Taichi Sakaiya (1995) popularized the concept of the knowledge society to describe the future of a society that was then under construction. To do this, he introduced the differentiating element of the price of knowledge based on subjective perceptions and elements (knowledge can be acquired in the short term at a higher price or be developed in the long term at a lower cost), as well as the value of knowledge, that is, the value that society ascribes to elements derived from that knowledge. Knowledge positively conditions individuals in order to reduce the complexity of the environment through the tools that make this change effective (Luhmann, 1997). The term, knowledge society, not only reflects the complexity and diversity of today's society; rather, it permeates all spheres of life (Lundvall & Johnson 1994; Stehr 1994, Willke 1998; Ranga & Etzkowitz, 2013). The phenomenon does not focus exclusively on technological progress but is presented as a tool for social change through different dimensions such as the economic, legal, political, cultural, ethical and technological aspects, and interrelates these elements with broader concepts such as education or quality of life. There are also different derived meanings, such as: 1) The "network society", which is halfway between the "information society" and the "knowledge society" and makes a clear distinction between information and informational capacities that "[...] *indicate the attribute of a specific form of social organization in which the generation, processing and transmission of information become the fundamental sources of productivity and power due to the new technological conditions that arise in this historical period*" (Castells 1996, p. 47). 2) The "information society", which implies the use of technology by taking into account the derived effects on the economy and employment (Braczyk, Cooke, Heidenreich & Krauss, 1998; Mattelart & Multigner, 2007). The production, reproduction and distribution of goods and services are essential activities of self-styled advanced societies. Their model is based on constant growth, as well as on the precept of having unlimited resources and demand, circumstances that are far from the reality in many contexts in which growth is measured by parameters that are inimical to the common good and general interest, such as gross domestic product.

Indeed, the economic growth so sought after by the prevailing economic system has been called into question by the circumstances of the COVID-19 pandemic, as reported by the World Bank: "*Per capita income lost in 2020 will not be fully recouped by 2022 in about two-thirds of emerging market and developing economies, including three-quarters of fragile and conflict-affected low-income countries. By the end of this year, about 100 million people are expected to have fallen back into extreme poverty. These adverse impacts have been felt hardest by the most vulnerable groups—women, children, and unskilled and informal workers"* (World Bank, 2021). The current state of knowledge and management in these economies has not been able to address or alleviate these problems effectively.

At present, the concept is evolving from an "information society" to a "knowledge society", thus shaping its structuralist role based on the political, economic, labor and cultural changes in which society is immersed. It should be noted that information *per se* is not power, but to acquire true knowledge the information must be systematized in order to obtain a benefit that affects people. According to Gonzales (2008, p. 2) "it is not only information technology that is the transforming agent of society, it is also, and to a greater extent, the knowledge that it is possible to generate through information".

2. METHODOLOGY

This paper is not intended as an exhaustive study of the knowledge society since it is a phenomenon in continuous movement and development, but it does seek to illustrate the variety of methodological approaches applied to the study of its constructs and related approaches. It is evident that the knowledge society is influenced by many negative aspects, and many of the definitions of are inadequate in considering all of the implications, adaptive processes and social realities involved. As a consequence, it was necessary to establish a reasoned theoretical approach that focused on the epistemological problems, which highlighted the difficulty of providing generalized solutions to the many questions and dilemmas that surround this area of study (Fourez, 1994). The method consisted of three steps: 1) a search within the corpus of academic literature relating to the knowledge society, which identified 82 relevant constructs (from March 2020 to June 2021); 2) the identification of six dimensions resulting from a content analysis, consisting of codification and approximation, in order to obtain descriptions that were both generalized and of sufficient depth; 3) a frequency count in Google Scholar of all definitions that refer to a specific dimension in order to calculate the relative usage of each dimension. It should be noted that not all conceptual approaches are equally significant, that is, the most frequently used dimensions have the greatest impact, which reflects their historical application (Howes and Solomon, 1951; Murphy, 1992; Kageura and Umino, 1996; Luque & Herrero-García, 2019). The relative usage of each definition was obtained by comparing the frequency counts in the chosen internet search engine. At an empirical level, the Internet provides valid frequency counts in comparison with other linguistic databases, and Google Scholar—a tool specialized in content searches of academic literature and the ordering of results by relevance—was selected as one of the most exhaustive and unrestricted of such engines.

3. RESULTS, ANALISYS AND DISCUSSION

3.1 Classification of Dimensions

The selection and classification of the specified dimensions were designed to reflect the depth, deployment and interconnections observed in the object of study. The grouping of related concepts resulted in six dimensions to be used for analysis: economic, political, social, cultural, ethical and technological, as set out in Table 1 (Luque and Herrero-García 2019). The study also took into account the cross-disciplinary nature of processes such as leadership, human capital management, process management and other connected elements, and focused on the needs of society and relations with stakeholders based on the creation, transfer, storage, application and use of knowledge within each of the dimensions discussed below.

With the exception of certain processes, such as that of the social economy, the economic dimension tends toward a paradigm of economic maximization. According to Hargreaves, (2003) the knowledge economy pursues private benefit while the knowledge society seeks the public good and the processes of so-called globalization normalize the quantification of life, society and progress in favor of private interests. Creativity and progress develop asymmetrically through the standardized processes of inequality, poverty, lack of access to effective education, inadequate health, environmental degradation, etc., all in spite of the potential mobility that the public enjoys at "just a click of a mouse". Productivity is the leading element of the economic dimension, since it is driven by the stimuli, regulations and support from diverse supranational organizations, and chooses to ignore the clear scientific reality of the existence of a finite planet in terms of resources. There is no doubt that the current economic model is in question and must be rewritten in favor of emerging needs and in response to manifest risks such as poverty and environmental depredation and their most jarring consequences, or the expulsion of a large part of the members of society who are often excluded despite having some form of employment.

The political dimension of knowledge intrinsically generates objective processes of justice, solidarity and equality, as well as all kinds of values understood as beneficial by society. Similarly, the social dimension is characterized by a marked inclusive component, leading to the need to evaluate intangible aspects such as quality of life. It is necessary to identify the mechanisms by which compatibility is reached between well-being—"Good Living" as it has been labeled in Ecuador—and the knowledge society. The cultural dimension, in addition to having a catalytic function, has its own multiple and interrelated meanings. This dimension is expressed implicitly by distinguishing references to the human being from others by analyzing differentiating systems in all nations and periods. Meanwhile, the relationship between culture and non-economic development is established by associating the right of human beings to participate in their own cultural creation, such as through the promotion of culture, art and scientific production. According to Echeverría, (2001) the outcomes for individuals are effected by specific motivations, which can be endogenous, such as physiological needs, or exogenous, such as actions conditioned by the environment that have a purpose and functionality that cannot be understood from their mere pragmatic utility, but through their fulfillment of cultural considerations.

The ethical dimension expresses the difference between what is desired and the existing reality. Society is immersed in a crisis of civilization in which greed, a lack of morals, or the scourge of corruption have become the norm and not the exception. A false image of modernity collides head on with the reality created in the laboratories of Silicon Valley where the rights of the users of their services are subordinated to the imperative of consumption—'what you have is what you are worth'— and a culture of need, power and lack of humanity (Luque, 2017). The technological dimension can be analyzed from different perspectives, including the economic, from which an alternative system is derived based on a different set of values, needs, demands, ways of organizing production or social life (Luque & Álvarez, 2021). Knowledge processes that are linked only to economic maximization based on structures such as green capitalism, ordoliberalism, liberalism, uberization, venture capital funds, etc., lead to conditions of inequality, suffering and anxiety. In other words, new technologies can be the cause of the exclusion of a large part of the public from the system. These consequences will continue to accumulate as long as the technological dimension is responsible for generating economic returns. According to Morozov (2020), "*the reason why countries such as China, Russia or Iran seek to recover or gain technological sovereignty is because they have understood that, without it, they will not obtain economic, military, financial, political or any other type of sovereignty, including cultural sovereignty. Europe wants to do the impossible: claim technological sovereignty while remaining in the American orbit when it comes to trade and development*." Finally, according to Castells (2002), the technological dimension has two fundamental expressions, which are the Internet and the ability to recodify living matter.

Table 1. Dimensions

Dimension	Definition Codification	Search String Example
Economic	Economic or financial aspects that affect and promote the knowledge society	'knowledge economy'
		'social economy'
		'shared value'
		'sustainable economic indicators'
		'speculation'
Political	Ideological paradigm that focuses power on a group of individuals who champion the guarantees and interests of a population	'models of human organization'
		'reconciliation of interests through negotiation'
		'use or create tools to solve problems'
Social	Set of factors linked to the interrelationships between people and life in society	'shared rules'
		'Good Living'
		'general interest'
Cultural	Values shared by the members of a given group, from the rules they agree on to the material goods they produce	'respect'
		'identity'
		'traditions'
Ethical	Choosing a dignified conduct in good faith, based on science and the means of acquisition	'dignified conduct'
		'happiness'
		'values'
		'reasoning'
Technological	Set of techniques, skills, methods and processes used in the production of goods, services or the achievement of objectives	'education'
		'data'
		'new technologies'
		'ways of organizing production and life'

Source: compiled by the authors

3.2 Compilation of the Definitions of Knowledge Society

The experimental procedure began with a default search for conceptualizations of "knowledge society" as employed by academics and expert professionals, as well as organizations and other institutions. To achieve this, keyword strings, such as those set out in Table 1, were entered into the Google Scholar search engine. The pre-established definition of the search chains, concomitant to the literature review, saturated in 6 categories. The process was carried out between March 2020 and June 2021 and resulted in the collection of 82 units of analysis (UA) (Appendix I), a sample that, according to similar studies, is of sufficient size for a qualitative study[3] (Luque and Herrero-García 2019). After the Google frequency count of the number of times each of the 82 definitions was cited or referenced, they were assigned dimensions according to the pre-established system of encoding, and the corresponding absolute frequencies, f_i, were obtained, as shown in Table 2. This stage involved several outline conditions for UAs, namely 1) that at least one academic reference be required, 2) that it not be duplicated in different databases, 3) that it may appear in one or more categories, up to a maximum of 6.

3.3 Study of Dimensions

Once the qualitative approach of this research had been developed, the next step was to explore the scope of each category, as well as its contribution to the knowledge society. The 82 UAs were assigned dimensions within one or more categories, in this case up to a maximum of 6, and the number of times that concept of the knowledge society had been used in the given time period was counted (f_i) (see Appendix I). In addition, the existence of the 6 dimensions unfolds the absolute frequencies in the corresponding f_{kj} or, to express it another way, the f_i of a unit of analysis *k,* associated with a category *j* (j = 1, …, 6). Thus, it was possible to obtain the relative weighting of each *j* dimension according to equations 1 and 2, respectively:

$$CD_j = \sum_{k=1}^{y} f_{kj} \tag{1}$$

Where,

CD_j is the scope of each *j* dimension
f_{kj} is the frequency of occurrence in Google of each unit of analysis *k* associated with a *j* dimension.

$$\%PD_j = \frac{CD_j}{\sum_{i=1}^{x} f_i} 100 \tag{2}$$

Where,

PD_j is the relative weighting of each *j* dimension, expressed as a percentage (%).

f_i is the absolute frequency of occurrence in Google of each UA or bibliographic reference k in a given period of time.

Table 2 shows the results obtained from this analysis. The social dimension contributes the most to the processes of the knowledge society with a factor of 0.86 while the political category is the least represented with at 0.10.

Table 2. Scope of dimension

j	Dimensions	CD_j	$\%PD_j$
1	Economic	4526	41
2	Political	1076	10
3	Social	9438	86
4	Cultural	2827	26
5	Ethical	2199	20
6	Technological	5319	49

Source: compiled by the authors

3.4 Dyad Model and Combination of Dimensions

By exploring Appendix I, it may be observed that the knowledge society concepts studied constitute anything from one to several categories with an associated f_{kj}; the volume of information generated is compiled in Table 3.

Table 3. Number of higher order UA

Nº of codified dimensions	Number of higher-order UAs	Weighting in the Google Count (%)	Distribution
6	0	0,0	
5	2	4,4	
4	7	7,0	
3	22	20,1	
2	35	52,7	
1	16	15,8	
	Total = 82	Total = 100 %	
Source: own elaboration			

The first-order categorization of the preceding heading allows a combination of dimensions that results in 82 AUs of higher order. Table 3 specifies the number of categories coded for the different groups of definitions together with their percentage contribution in the global count. It can be observed that, with constructs comprising 1, 2 and 3 categories, approximately 90% of the concepts of the knowledge society are cited. An association by dyads of 35 units of analysis has by far the greatest weighting (Luque & Herrero-García, 2019). Thus, a dyad model is defined, consisting in the break-down, with respect to the initial sample, of the 35 UAs catalogued into two categories for the corresponding study of their individual contributions (% weighting fraction) as a dyad of knowledge society dynamics (Table 4).

Table 4. Dyad model

Dyad		Number of UAs Included	Weighting Fraction (%)
2	Economic-Social	11	37,6
5	Economic-Technological	4	6,6
6	Political-Social	1	8,8
10	Social-Cultural	4	9,7
11	Social-Ethical	4	16,3
12	Social-Technological	9	20,1
15	Ethical-Technological	2	0,9
		Total = 35	Total = 100%

Source: own elaboration

The data obtained from Table 4 suggest that knowledge society processes are vectorized by an economic-social dual-category (dyad 2), while the dimensions that are weakly defined, if at all, are the ethical and technological (for example, dyad 15, with 0,9%), If we apply combinatorial analysis, the grouping of 6 elements by 2s provides 15 possible dyads, such as those shown in Table 5. Of these, only 7 have been shown in the study, excluding the remaining 8. This information was collected by taking the individual contribution of each dimension or $\%PD_j$ and taking the algebraic sum of the dyad to obtain its relative importance, in decreasing order (Table 5).

The data in the first section of the table, labeled "appearing", are the same as those already obtained in Table 4 and do not provide additional information, except by the order of their scores based on relevance. It can be observed that the 14th dyad does not appear in the categorization, yet it has the same probability of having done so.

The objective is to try to demonstrate whether, in the existing knowledge society processes as contemplated by experts, there are one or more dimensions in addition to the established dyad 12. To achieve this, the entire contribution of the economic, the legal and successive dimensions was summed as shown in Table 6. This shows the most representative dimensions in both sections since, within the "not appearing" group, they represent a mirrored value or reflection of their greater contribution to knowledge society processes. In addition, within this range of values, the political category appears as a lost dimension within the current processes of the knowledge society. Table 6 also shows that the cultural and ethical categories vectorize knowledge society processes only residually.

Table 5. Relative importance

Dyad		Economic	Political	Social	Cultural	Ethical	Technological	Relative Importance (^{0}/1)
Appearing	12			0,86			0,49	1,35
	2	0,41		0,86				1,27
	10			0,86	0,26			1,12
	11			0,86		0,20		1,06
	6		0,10	0,86				0,96
	5	0,41					0,49	0,90
	15					0,20	0,49	0,69
Not appearing	14				0,26		0,49	0,75
	3	0,41			0,26			0,67
	4	0,41				0,20		0,61
	9		0,10				0,49	0,59
	1	0,41	0,10					0,51
	13				0,26	0,20		0,46
	7		0,10		0,26			0,36
	8		0,10			0,20		0,30

Source: own elaboration

Table 6. Mirrored Values

	Economic	Political	Social	Cultural	Ethical	Technological
Appearing	0,82	0,10	4,30	0,26	0,40	1,47
Not appearing	1,23	0,40	0,00	1,04	0,60	0,98

Source: own elaboration

This fact leads us to two complementary positions: on the one hand, to the induction of the current concept of the knowledge society as that which results from the most commonly used approaches within the dual economic-social dimension; and to complement this with the definition of greater weighting (Table 7). The direct relationship between the knowledge society and the economy is evident although sometimes disruptive and exclusive. According to Han (2018) “the more equal people are, the more production increases; that is the current logic; capital needs us all to be equal, even tourists; neoliberalism wouldn’t work if people were different.”

Table 7. Greater weighting

Nesbit, & Adesope (2006)	These are ideas that are used as a means for constructive learning activities and as communication aids in conferences that staff need.	1.224	Economic Social
Carrillo (2006, p. 2)	They constitute all of the complex and unprecedented realities, each has exposed the limits of the approaches to development of the human being and the creation of social value	332	Economic Social

Source: own elaboration

CONCLUSION

There are many approaches and concepts relating to "society of knowledge" and this relationship is expressed in six dimensions. The broad scope of the phenomenon is evidenced by the diversity of interests that underly it, primarily of social and economic character. Hence the difficulty of choosing only one of the definitions analyzed here in order to be standardized and applied to any context of life in society. The different processes involved in the knowledge society can be analyzed to guide the management of these challenges within this phenomenon. There are benefits to be derived from all spheres of life and those arising from the actions of governments, supranational organizations, companies and society in general are of particular interest since they manage knowledge in relation to their own private ends, blurring the line the between profit and general interest. In fact, the acceleration of life in society diminishes the happiness of many of its members: free time is commodified and made available only to the few. Knowledge is also subject to exploitation by the monetization of personal fulfillment disguised as progress.

The challenge of the knowledge society should not be to define the concept of what it is, but to understand its complexity when implementing public policies or business strategies. These are inexorably connected at the global level and their asymmetries and differing needs, which shift according to the context, must be borne in mind at all times.

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KEY TERMS AND DEFINITIONS

Globalization: Concept used to describe the growing interdependence of the world's economies, cultures, and populations, brought about by cross-border trade in goods and services, technology, knowledge and flows of investment, people, and information. It also generates large asymmetries.

Liquid Modernity (in Recognition of Zygmunt Bauman): A concept that focuses on the transformations that affect human life.

Lobby: The attempt to influence a public official in favor of a cause and in order to promote or block legislation.

Precariat: People whose employment and income are insecure, especially when considered as a class.

Uberization: Providing on-demand services for as many needs as possible.

APPENDIX I

Knowledge Society Constructs

Table 8 shows the source of the definitions of "knowledge society", the concepts related with each author, and the dimension to which each belongs.

Table 8.

Source	Concept	Frequency Count	Dimension
Alberch (2003, p. 179)	It has its origin in the significant increase in the quantity and quality of information and promoting substantial changes in the culture of the citizenry that lead to an improvement in competitiveness and above all, in the quality of life.	49	Economic Social Cultural Ethical
Balderas (2009, p. 77)	It is an evolutionary stage toward which humanity is headed, a stage after the current information age, and that will be reached only if the information ceases to be a mass of undifferentiated data and is taken to be a source of power and not as power itself.	65	Social Cultural Technological
Barroso (2013, p. 63)	It consists in a group of individuals who basically share three areas: the gnoseological, the ethical and the technical or technological field.	49	Ethical Technological
Beech (2005, p. 1)	It is an educational policy that promotes the idea that education must adapt to the future and completely confuses the terms of the equation, since it overlooks the fact that education is in itself the essential activity through which human beings build the social future.	25	Political Social Technological
Bereiter (2003, p. 1)	It promotes those activities that favor identification, organization so that they can be enhanced or spread and develop an advanced society for the well-being of people.	102	Social Technological Ethical
Boiser (2002, p. 62)	A stage after the development of industrial society, in which technology becomes the central element of social organization and economic production, especially in regard to the advance of new information and communication technologies.	55	Economic Social Cultural Technological
Bozu & Canto (2009, p. 88)	It is a final state of an evolutionary stage toward which society is headed, a stage after the current information age, and that will be reached through the opportunities presented by the information and communication technology (ICT) of today's societies.	55	Social Cultural Technological
Brown, Leach, & Covey (2008, p. 595)	The increase in competitiveness, increase in technological development, as well as the current free-for-all in relation to the free movement of capital (not so people) have inexorably generated social and organizational changes.	26	Economic Social
Burch, Ambrosi, Peugeot, & Pimienta (2005, p. 34)	It is a society in which the conditions of knowledge generation and information processing have been substantially altered by a technological revolution focused on information processing, knowledge generation and information technologies.	21	Social Technological
Carrillo (2006, p. 2)	They constitute all of the complex and unprecedented realities, each has exposed the limits of the approaches to development of the human being and the creation of social value.	332	Economic Social
Casas (2005, p. 4)	A new economic-productive paradigm in which the most important factor is no longer the availability of capital, labor, raw materials or energy, but the intensive use of knowledge and information.	237	Economic Technological
Castelfranchi (2007, p. 1)	Knowledge is information structured in integrated, relevant representations, aimed at interpreting data (through schemes and models), at explaining, foreseeing, and making it usable in effective actions or in thinking.	52	Cultural
Castells (1996)	It is a society in which the conditions of creating knowledge and processing information have been substantially altered by a technological revolution focused on information processing, knowledge generation and information technologies. This is not to say that technology is the determining factor; technology is always developed in relation to social, institutional, economic, cultural contexts, etc.	469	Economic Political Social Cultural Technological
Crawford (1983, p. 383)	The definition of knowledge society is education, various printed and electronic media, artistic creation, telecommunication, postal services, and information technology thrown into all of this.	157	Social Technological
Cruess, Johnston & Cruess (2004, p. 75)	The effectiveness of new technologies that we find in the workplace and form a society that can have culture, social and economic relations.	378	Economic Social Cultural Technological

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Table 8. Continued

Source	Concept	Frequency Count	Dimension
David & Foray (2003, p. 20)	It is the growth of a level of social welfare that has the ability to innovate to produce products, processes and organizations that each individual performs.	604	Social Ethical Technological
Del Canto (2011, p. 91)	It is related to the organizational context and learning, in the search for the deepening of knowledge of the sciences.	29	Economic Social
Domínguez (2001, p. 488)	It occurs when information is only the source of energy or raw material and the results are knowledge, according to which a whole production system based on telecommunication must be developed, such as the structures of the Internet and intranet, which are not only new technologies or instruments, but, above all, a new form of organization for the generation and production of knowledge, which also generates a new way of living, thinking and with it, different cultural values, a whole culture.	47	Economic Social Cultural Technological
Dupré & Somsen (2019)	It is often presented as a mere expansion of the history of science and has been portrayed as nothing more than making the extension of the scope of history explicit.	15	Cultural
Flores & Rebollar (2008, p. 1)	It is that whereby most of the social and productive activities have a large component of new knowledge, with a very high rate of change, so the most valued technical and professional skills are those that enable the acquisition of knowledge and skills that add value to products and services, whether public or private, individuals or groups.	16	Economic Social
Flórez et al. (2017, p. 39)	The most advanced phase of globalization in which scientific visions are internationalized in favor of the economic and social development of states.	70	Economic Social
Fontcuberta (2000, p. 25)	That which combines the processes of teaching and learning. On the one hand, it is more important to know how to access information than to memorize it, reproduce it; on the other hand, media, including the Internet, are now fundamental vehicles of access to knowledge and containers of some of that knowledge.	27	Social Technological
Forero de Moreno (2009, p. 42)	It drives the fundamental element of human life because all economic, labor, educational, and cultural activities have the capacity to innovate.	45	Economic Social Cultural
Gallardo-Echenique, Minelli de Oliveira, Marqués-Molias, Esteve-Mon, Wang, & Baker (2015, p. 2)	That which links individuals with a purpose to generate some core values that provide good-quality learning and opportunities in life.	185	Social Ethical
Galvis (1998, p. 249)	It is properly to assume responsibility for self-re-education in the cognitive, moral, aesthetic and motor dimensions, within a context in which educational opportunities are offered, and where the media also educate and where many organizations have consciously and deliberately entered the educational area.	35	Social Ethical Technological
García (2008, p. 1)	It is postulated by the assimilation of a rigorous knowledge base and effective strategies and by developing reflective, critical and creative thinking. Social changes, in this type of society, promote transformations also in education.	2	Social Cultural
Giner (2004, p. 3)	The information society or knowledge society organizes and structures its functioning (way of life, form of relationships, way of working, etc.) around information and communication technologies, and turns information into an element of production, exchange and knowledge.	184	Social Cultural Technological
Godin (2006, p. 4)	Knowledge is reputed to be the basis for much of the economy. Knowledge is said to have taken on increased importance in recent years, both quantitatively and partly because of information and communication technologies.	116	Economic Technological
Gros (2015, p. 59)	Learning cultures permeable to the constant incorporation of new ideas, technologies and trends of use, which the users themselves, individually or collectively, are responsible for legitimizing.	148	Social Technological
Gutiérrez del Valle, Sánchez, Abad, & García (2009, p. 120)	The information and communication technologies associated with the digital revolution become the necessary infrastructure for the deployment of this economic and social model, favoring access to and the circulation of information, interactive work between people and organizations in different locations, together with an increase in horizontal and flexible connections.	38	Economic Social Ethical Technological
Hong, Scardamalia, & Zhang (2010)	Governments everywhere strive to increase their capacity to create new knowledge and address what Homer-Dixon (2000) has called the “ingenuity gap” and the growing need for new knowledge to address problems and opportunities.	58	Political
Hornidge (2011, p. 2)	Consequently, the knowledge society was often considered a product of technological developments in the information and communication sector, as well as of economic developments in the services and intensive knowledge sectors.	40	Economic Social Technological
Hussain (2007, p. 163)	Society can be considered a knowledge society with universities and information technology being the elements that replace capitalism with the acquisition and dissemination of knowledge.	50	Economic Social Technological
Jensen, Lahn & Nerland (2012, p. 7)	At the same time, however, the knowledge society significantly challenges the classic modes of operation of the professions, and demands that they be rebuilt in a way that is more powerful in emerging epistemic landscapes.	103	Social Ethical

Continued on following page

Table 8. Continued

Source	Concept	Frequency Count	Dimension
Jurado & Sánchez (2014, p. 1)	A partnership between other elements: the global perspective and the use of new information and communication technologies (ICT) as main factors. There are multiple changes associated with the new system.	12	Social Technological
Karpov (2016, p. 3488)	As fundamental factors of a new type of socialization, the cognitive role of the structure of the knowledge society and spiritual abilities determine how creativity is presented. The possibility of research into socialization is explained through the dynamics of the professional maturation period in the conditions of the general technological field of modern knowledge culture.	40	Social Cultural Ethical
Kogan (2007, p. 35)	The knowledge society is probably a logical consequence of the growth of new industrial technologies.	135	Social Technological
Kruger (2006, p. 2)	It is a concept that apparently summarizes the social transformations that are taking place in modern society and serves the analysis of these transformations. At the same time, it offers a vision of the future to guide policy actions normatively. However, it has had an uneven adaptation in the different linguistic areas, also concurring with other terms such as information society and network society.	510	Political Social
Laurillard (2002, p. 133)	It is an increase in the information technologies that carry out activities in a modern society.	441	Social
Longet (2005, p. 159)	We need a better capacity for information. To have a better information capacity, we need to use information technology for a specific goal.	1	Ethical Technological
Lytras & Sicilia (2005, p. 3)	It is known as a resource that everyone uses and that has an evolution of humanity through an environment that generates opportunities for us.	151	Social
Maciel & Albagli (2009, p. 97)	The development of science and technology as the main productive forces in our contemporary world is related to a set of social, political, economic and cultural changes that show the transformative potential of knowledge and have given rise to the notions of information. And it was knowledge.	13	Economic Political Social Cultural Technological
Mansell & Wehn (1998, p. 6)	Information and knowledge are expanding in quantity and accessibility. In many fields, future decision-makers will be presented with unprecedented new tools for development. In such fields as agriculture, health, education, human resources and environmental management, or transport and business development, the consequences really could be revolutionary.	-	Economic Technological
Marcelo (2001, p. 532)	Since information is an integral part of all human activity, all the processes of our individual and collective existence are directly shaped by the new technological medium.	629	Technological
Mateo (2006, p. 146)	Knowledge is the parameter that governs and conditions the structure and composition of today's society and is also the commodity and instrument that determines the well-being and progress of peoples.	181	Economic Social
Markkula (2005)	The knowledge society produces commodities of high knowledge value. Knowledge and experience constitute crucial elements of production, together with information and communication technologies that comprehensively support the interaction, dissemination and exploitation of knowledge, in addition to the provision and accessibility of services.	27	Economic Technological
Martín (2007, p. 54)	Set of ideas such as human capital, intellectual capital, intangible assets, learning process, intelligent organization, organizational learning, explicit knowledge, tacit knowledge, knowledge economy and knowledge management.	75	Economic Social
Martínez, Lara-Navarra, & Beltran (2006, p. 3)	It is the way to improve access to and management of information and knowledge flows, which has minimized the barriers to the dissemination of these two resources and, consequently, generated a notable increase in explicit social or external knowledge for the individual.	39	Economic Social
Ministry of Culture of the Russian Federation (2013, p. 118)	The information society opens up hitherto unseen possibilities for access to information and knowledge. At the same time, the information society carries with it numerous risks and dangers. Facing huge volumes of contradictory and heterogeneous information, individuals are experiencing ever-growing difficulties to find their bearings, to obtain information and process it.	-	Technological
Mora (2004, p. 21)	It is considered that knowledge and technology, and no longer mere industrial production, are the elements of greatest impact for the economic and social development of communities. In this society, higher education and universities acquire new relevance since these are not only one of the main sources of knowledge generation, but they are the basic centers for the transmission of knowledge, science and technology.	514	Social Technological
Moreno, Pelayo, & Vargas (2004, p. 56)	In the age of knowledge, new rules are created by information, knowledge and new technologies of information communication. The difference today is the speed, the acceleration with which this phenomenon occurs.	79	Technological
Moreno & Velázquez (2012, p. 9)	A process of globalization that intends to take advantage of the talents of all humanity to produce and create a society that considers knowledge the center of the production of wealth.	25	Economic Social
Nesbit, & Adesope (2006)	These are ideas that are used as a means for constructive learning activities and as communication aids in conferences that staff need.	1.224	Economic Social
NU-CEPAL (2003, pp. 11-12)	It is based on the general characteristics of technologies and communications in the processes of the cultural core of society.	146	Social Cultural Technological

Continued on following page

Table 8. Continued

Source	Concept	Frequency Count	Dimension
Olive (2005, p. 50)	They refer to phenomena such as the dramatic increase in the rate of creation, accumulation, distribution and use of information and knowledge, as well as the development of technologies that have made them possible, including important information and communication technologies.	93	Economic Social Technological
Ortega-Carbajal, Hernández-Mosqueda & Tobón-Tobón (2015, p. 42)	It is interwoven with the whole of social activity. The process of the generation and dissemination of knowledge tends to be carried out on a daily basis in a multitude of institutions and human and computer networks are formed to manage this knowledge.	214	Social Cultural
Ottone & Hopenhayn (2007, p. 14)	Equalizing educational opportunities, that is, moving towards a system that allows everyone to develop their capacities for future opportunities.	59	Social Cultural Ethical
Pérez, Mercado, Martinez, Mena, & Partida (2018, p. 4)	The Information society and knowledge society are two expressions that, in the educational field, refer to the use of digital devices to facilitate learning and consolidate a comprehensive model of education that meets the techno-pedagogical objectives of today.	113	Social Technological
Ramírez (2015, p. 105)	It is presented as an opportunity to improve the transfer of knowledge to try to produce better goods and services in a globalized world.	-	Economic
Rieu (2005)	It is a social process based on the current reconfiguration of relations between science, technology, and human and social sciences.	11	Social Cultural Ethical
Rivas (2004, p. 60)	In addition to intellectual development, instruments of knowledge specific to each of the sciences are required. The individual is required to possess clear, differentiated, organized and stable instruments of knowledge.	31	Ethical
Rodríguez (2003, p. 82)	The search for truth based fundamentally on the application of a rigorous, verifiable and demonstrable method.	39	Ethical
Rodríguez, Mesa & Álvarez (2006, p. 6)	It is conceived of as the generation, processing and dissemination of scientific information through technology.	29	Technological
Rovira & Calderon (2016, p. 95)	The direct impact caused by advances in communications technology in areas such as science, economics, politics and culture.	1	Economic Political Cultural
Ruíz (2002, p. 111)	A society permeated by knowledge and its technological, social and educational consequences and one that is dominated by the preeminent institution of knowledge.	29	Social Technological
Ruiz & Buira (2007, pp. 6-7)	It emphasizes that knowledge represents a higher category than information (although the question tends to be avoided of how to move from digitizing information to digitizing and generating knowledge).	-	Technological
Sahlberg (2008, p. 47)	To improve the basic qualities for our complex world.	507	Social Ethical
Salazar-Gómez & Tobón (2018, p. 2)	A profound transformation that involved new forms of social, economic and political organization; from this new social configuration, a vision based on the central idea of knowledge and information began to spread and be accepted.	339	Social Cultural
Sánchez (2008, p. 24)	It is characterized by the ability to make use of information through analysis or critical reflection to generate the knowledge necessary to promote individual and collective human development.	44	Social Cultural Ethical
Sánchez, Boix & Jurado de los Santos (2009, p. 180)	The widespread implementation of new information and communication technologies that will govern the future of economic systems, cultural innovation, human interactions and obviously the processes and circumstances of learning and education.	193	Economic Social Cultural Technological
Sánchez, López, Cervantes & Cañibano (2000, p. 194)	It is the use and dissemination of new information technologies and telecommunications in the community, which must be supported in general with liberalizing measures. In turn, the training that companies undertake to improve the level and qualifications of their human capital is considered fundamental.	43	Economic Social Technological
Stehr (2001, p. 90)	This trend toward the development of fragile social systems is clearly the result of an uneven extension of individuals' capacity for action.	148	Social Ethical
Tarango & Machin-Mastromatteo (2017, p. 7)	While the term typically refers to a broad array of information and communication technologies (ICTs), it has become most closely associated with the development of the Internet, the commercialization and popularization of which made the reality of an information society more visible and accessible to a wider range of people. Most recently, the spread of mobile phones throughout the developing world and the explosion of social media have made the previously new and exciting facets of the knowledge society ever more routine through greater integration into the daily lives of people around the world.	14	Economic Social Cultural Technological
Terrazas & Silva (2013, p. 146)	It is primarily concerned with the perspective of promotion of and interest in knowledge for an adequate management of the trinomial: education-knowledge-research.	42	Ethical

Continued on following page

Table 8. Continued

Source	Concept	Frequency Count	Dimension
Tubella & Vilaseca (2005, p. 1)	It aims to publicize the main transformations that take place in cultures and cultural output as the knowledge society develops.	7	Social Cultural
UNESCO (2005, P. 17)	Each society has its own knowledge assets. Therefore, it is necessary to work to connect the forms of knowledge that societies already possess and the new forms of development, acquisition and dissemination of knowledge valued by the knowledge economy model.	218	Economic Social Cultural
UNESCO (2015, P. 62)	Inclusive Knowledge Societies will be societies in which people have ready access to information and to communications resources, in languages and formats that suit them, whatever their individual circumstances, together with the skills to interpret and make use of them, and employment opportunities to turn information and skills into sustainable livelihoods.	104	Social Cultural Ethical
United Nations (2005, pp. 112-113)	Society needs knowledge to coexist, observing its past and its future to form a good and satisfactory society and thus fostering the union and integration of all the statuses of people to cover their human relationships.	8	Social Cultural Ethical
Van der Velden & Allen (2011, p. 15)	There has been a technological advance that has formed a new social layer that goes together with the work that each person performs.	228	Economic Social Technological
Vélaz de Medrano & Vaillant (2015)	The understanding of the central role of technology in social organization and in the production of goods and services establishes a dizzying race for the continuous improvement of available technology, since the availability of new technologies confers a privileged position over competitors.	119	Technological
Willinsky (2005, p. 97)	The emergence of the knowledge society brings its own “pleasant exercise of hope and joy” and happiness, investing in knowledge and learning for a better development of society.	48	Social
Young (2010)	It is important to evaluate a good idea that gives us a factor for economic growth that is social development, which relates to society and allows it to reach its goal.	155	Economic Social

Source: compiled by the authors

Chapter 9
Innovative Adaptation in Strategic Organizational Resilience

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ABSTRACT

This chapter has the purpose to analyze the implications of innovative adaptation in strategic organizational resilience. It is assumed that organizational resilience has a strategic role designed and implemented to promote organizational community resilience to survive, adaptive innovation, and achieve success after a disaster. The method employed is the reflective and analytical review of the theoretical and empirical literature to clarify the relevant issues of innovative innovation in strategic organizational resilience. It is concluded that innovative adaptation and engineering resilience strategies achieve organizational resilience as the capability to self-renew through innovation.

INTRODUCTION

Organizational resilience is defined as capacity, capability, behavior, strategy, outcome, performance among other concepts. Organizational resilience has a strategic role (Carmeli and Markman, 2011; de Oliveira Teixeira and Werther, 2013; Hamel and Välikangas, 2003) and also has a relevant role at operational-level such as the supply chain to maintain service delivery and functionality (Jüttner and Maklan, 2011; Pettit *et al*. 2010; Ponomarov and Holcomb, 2009; Sheffi and Rice, 2005; Zsidisin and Wagner, 2010).

Organizational resilience is being analyzed from the systemic, psychological, social, and strategic management perspectives. Resilience is an organizational capability based on culture of change considered as the ability to make sense of the environment to realign resources aimed to strategic options to develop and advantage (Ates and Bititci 2011).

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Resilience is the capability of strategic awareness linked to management to face in advance any disruption of internal and external shocks and unexpected events (Annarelli and Nonino 2016). At organization level, resilience can adjust under challenging conditions (Sutcliffe and Vogus, 2003) involving the ability to bounce back from risk and disorder event to maintain the capacity of functioning, considered as a strategic advantage (Gittel *et al.* 2006; Cheng, 2007). Strategic organizational resilience is an imperative for the survival inputing applications to deal and mitigate with risks.

Resilience theories suppose resilience to be a trait inherent to personality (Fletcher & Sarkar, 2013) and includes protective factors for a coping strategy that allows to bounce back from any psychological stressor (Earvolino-Ramirez, 2007; Rutter, 2012). The literature on resilience draws upon theories of resources-based view (RBV), capability -based and strategy (Barney 2001a, 2001b).

Resilience as a property is related to negative events such as surviving and adapting to disruptions (Bell, 2002; Horne III & Orr, 1998; Hu and Holloway, 2008 Lengnick-Hall *et al.,* 2011; Sheffi & Rice Jr., 2005), threats (Bhamidipaty *et al.,* 2007; Dewald & Bowen, 2010) disasters and catastrophes (Tierney, 2003; Alblas & Jayaram, 2015); challenging conditions (Sutcliffe & Vogus, 2003; Vogus & Sutcliffe, 2007); disturbances (Hollnagel, 2010; Linnenluecke & Griffiths, 2010; Mamouni Limnios *et al.,* 2014; Tillement *et al.,* 2009); or changes (Fiksel, 2006; Grøtan & Asbjørnslett, 2007; Mafabi *et al.,* 2015; Milanzi & Weeks, 2014; Stewart & O'Donnell, 2007).

Resilience is more that the property of a system to adaptation and response. Adaptation and resilience as responses are dependent on the type of change. Resilience directs towards accelerated change (Linnenluecke et al. 2012). Organizational resilience has as potential sources for effective responses in the case of unexpected events the bricolage, wisdom, virtual role systems and interactions (Weick 1993).

Resilience is the capacity for an enterprise to survive, adapt and grow even in times of turbulent change (Pettit et al. 2010, 2013). Resilience is the ability of systems to anticipate and adapt to potential failures. Resilience is the ability to adapt to new and complex problems without disrupting the operation of the system (Borges and Menegon 2012). Resilience is defined as the ability to focus on adaptation and derive the resilience dimension of flexibility, vulnerability, adaptability, efficiency, and other indicators.

Resilience is the ability to adapt and change behavior focusing on adaptation (Huber et al. 2012; Øien 2013; Bhamra et al. 2011). Organizational adaptation to environmental changes requires resilience (Collis 1991). Resilience is also a desirable strategy organization. Resilience is the positive adaptation despite diversity (Fleming and Ledogar 2008). Resilience must reflect social and human factors as the agility, adaptation, and rapid response of organizations in developing an enduring, diverse portfolio despite a turbulent and stressful environment (Coullahan and Shepherd 2008). Resilience is the capability of recognizing, adapting to, and coping with the unexpected (Woods 2006).

Resilience is the capacity and capability of a system to develop foresight, to anticipate and manage risk (Hollnagel et al. 2006; McDonald 2006) through adaptation of actions and processes to ensure functioning in disruptive events (Dalziell and McManus 2004). Resilience is the ability to cope with and adapt to risk, disaster, or crisis stress to survive and reduce damage (Pelling 2003). The perspective of safety and reliability relates to the concepts of anticipation or awareness and adaptability to resilience.

Increasing organizational resilience requires innovation and creativity to make new ideas characterized by originality of thought and imagination. There are factors and mechanisms contributing to resilience despite the use of different terms such as creativity and innovation, improvisation, building situation awareness, vulnerabilities, improvisation capacity, resiliency of individuals, flexibility, robustness, and redundancy. Organizational resilience is a strategy designed and implemented to promote organizational community resilience to survive and achieve success after a disaster (Bhamra et al., 2011; Lee et al., 2013).

ORGANIZATIONAL RESILIENCE ADAPTABILITY

The concept of organizational resilience has been treated from disciplinary perspectives such as for example ecology, resilience engineering, safety, reliability, positive psychology, organizational development, strategic management, etc. Organizational resilience is linked to innovation (Akgün and Keskin 2014; Carvalho et al. 2016). Innovativeness influences organizational resilience conceived as the ability to absorb and develop responses to engage in transformative activities leading to better performance and capitalizing on disruptions that threaten the organization (Akgün and Keskin, 2014).

Organizational resilience is linked to innovation, and knowledge management by responding to the environmental demands for organizational adaptation, effective and efficient service delivery, competitiveness, and reputable value (Mafabi et al. 2012). Organizational resilience is defined as the firm's ability to absorb unexpected events, develop situation-specific responses, and engage in transformative activities. Organizational resilience as considered as an ability to rebound from unexpected, adverse, and stressful events (Lengnick-Hall et al., 2011).

The theory of resources and capabilities is used as a strategy to strengthen the phenomena of organizational resilience during and after coping a crisis and achieve higher rates of organizational development and growth. The principles that give support to organizational resilience are leadership, strategic and operational planning, performance, among others.

Organizational resilience is a framework to manage resources in a coherent strategy aimed to build organizational capabilities. The organizational resilience framework refers to the linking principles, components, and attributes to the activities design, develop and implement strategic improvement. Organizational resilience framework enables responses to disruptive risks and strengthens capacities and capabilities aimed to adapt changing uncertain and complex circumstances.

The organizational resilience framework is formed by linking principles, components and attributes aimed to design, develop, and implement organizational strategies to achieve continuous growth and improvement. The building of organizational resilience capabilities requires the adjustment of strategies during a cycle of decline, collapse, and re-building. The organizational resilience framework increases the adaptability and agility capacity to respond disruptive events.

Risk and protective factors of organizational resilience may be capability-based as the ability to become flexible and adaptable to respond to environmental changes (Sullivan-Taylor and Branicki 2011). The most resilience organizations are adapted, and high performing made up of individuals that trust and support each other

Organizational resilience is the capacity to adopt new organizational routines and processes to address the threats and opportunities from disruptive innovation (Dewald and Bowen, 2010). Organizational resilience is considered as the ability of the owners to respond and adapt to stressful events and to solve problems (Danes *et al*. 2009). Organizational resilience is considered as the ability of the owners to respond and adapt to stressful events and to solve problems (Danes et al. 2009). Organizational resilience is the ability to self-renew through innovation over time (Reinmoeller and van Bardwijk, 2005).

The response of organizational resilience is adaptability and openness to preserve long term survival and functioning of systems (Handmer and Dovers 1996). Adaptability is required to build organizational resilience and ensure service quality since coping with environmental changes is relevant to maintain organizational operations. Adaptability and sustainability in organizational resilience is linked to psychological health of individuals in organizations. Resilience considered as the ability to adapt, recover, and bounce back. Organizational resilience outcomes may lead to rebuilding and renewal of organizational adaptability, proficiency, and proactivity after crisis.

Organizational resilience is a collaborative approach among all the involved actors and stakeholders that cannot separate functions and processes to deal with risks and mitigate threats through empowerment to seize all opportunities in innovative approaches. Organizational resilience transgresses from the guidelines into a tool for disruptive innovation for practice.

Resilience maintains continuous development, transformation, and innovation of new configurations under internal and external perturbations (Folke, 2006). Some of the indicators for organizational resilience are the innovation, creativity or improvisation capacity, collaboration, situation monitoring and reporting (Lee *et al.* 2013). Change management capability and innovation adoption at the levels of individual, group and organizational is an indicator for organizational resilience (Ates and Bititci 2011). Organizational resilience is a managerial core competency that helps organizations to respond to adversities and increase adaptability by building resilience.

ADAPTIVE INNOVATION AND ENGINEERING RESILIENCE

Resilience is the individual, organizational and community ability to resist, absorb, adapt, and recover a better state after disruptive event (Kahan et al., 2009; McManus et al., 2008). Ecosystems and engineering perspectives on resilience refers to persistence and bounce back to prior state before the crisis until get robustness (Pimm, 1984). Engineering resilience applies in an operating system near the equilibrium while the ecological resilience entails that the system operates at the level of instability (Holling 1996).

Resilience engineering is a new concept of thinking about a problem, safety and opportunities, methods, and tools to assess and improve the organizational capacity and build strong and flexible processes (Pellissier 2011, 2012; Hollnagel et al. 2006; Dekker et al. 2008; Omidvar et al. 2017). The concept of resilience engineering from the ergonomic studies focuses on the ability of the system to recover, adjust, preserve, monitor, and sustain its functioning (Hollnagel, Woods & Leveson, 2006) in the short term to minimize the costs from damage (Kikuchi & Yamaguchi, 2012).

The concept of engineering resilience as the efficiency of design and functions is a differentiated concept ecological resilience as the maintenance of the function (Brand and Jax 2007; Holling 1996). Resilience engineering is integrated into fundamentals of organizational resilience (Pellissier 2011). Organizational resilience is based on resilience engineering principles and indicators that provide basis to design, improve and control resilience (Huber et al. 2012; Øien 2013; Pellissier 2011; Erol et al. 2010).

Organizational resilience is formed by the balance of preventative control, mindful action, performance optimization and adaptive innovation. Engineering resilience is the building of systems to retain normal function under a range of conditions and regain it after external forces return to a desired range (Woods, 2006). Engineering resilience anticipates system responses.

Organizational reliability is a concept drawn from engineering that focuses on mindful system awareness and reducing on the reduction of probability of organizational failure (Weick & Sutcliffe, 2007) while organizational resilience focusses on the organizational recovery from irregular variations (Nemeth, 2009: 3) an unstable operations and conditions.

Engineering resilience of systems operate in a reliable pattern defined in a range of interdepending parameters. Engineering resilience design and implement models that look forward the processes to seeking emerging conditions causing the systems to fail. Resilience engineering needs data from monitoring the performance of the system during a normal functioning acquired by defined leading and lagging indicators to gain knowledge of working conditions (Di Gravio, Mancini, Patriarca, and Costantino, 2015).

The preventive actions are related to the ability to detect environmental and organizational disturbances and critical developments and to adapt and react proactively to future changes. The adaptive innovation in organizational resilience is created through exploring and inventing new technologies and markets. Organizations respond to failures by actions of resilience to bolstering preventative control, training, and engaging in adaptive innovation and mindful action (Denyer and Pilbeam, 2015).

An adaptive innovation approach to organizational resilience design and implement more flexible and progressive strategies to create, invest and discover new products and markets in a competitive marketplace environment (Denyer, 2017). The ecosystems increase they resilience though the access and adaptation to new technologies, flexibility, sharing assets and reducing costs while organizations may be increase resilience through managerial efforts assessing internal and external challenges with the collaborative associations and strategic alliances, and deploying resources (Hoffmann, 2016).

Resilience engineering is a new paradigm of organizational innovation that compares complexity science to other existing management paradigms (Pellissier 2011). Experience on specific adjustments in adapting to possible states ground resilience engineering (Nemeth, 2009). The resilience engineering perspective designs systems based on redundancy, flexibility, and adaptability. Adaptation as engineering resilience versus transformation as ecological resilience. In this sense, the ability to sustain a competitive advantage through the capability to deliver performance while in paradox innovating and adapting to turbulent change. The resilience approach on nonlinearity is a proactive adaptability instead of reactive changes (Howard-Grenville et al. 2014).

Organizational resilience is also influenced by resilience engineering (Chewning, *et al*. 2013; Erol *et al*. 2010; Ismail *et al*. 2011). Resilience engineering anchors the concept of resilience and its development of features in operational means for their assessment (McDonald, 2006; Patterson, and Deutsch, 2015). Preparedness for adversity to recover engineering resilience to prior performance levels (Birkland & Waterman, 2009: 29)

Organizational resilience engineering is a safety management paradigm that focus on facing with the complexity of the conflicting goals. The rationale of organizational resilience engineering perspective is in the domain of safety. Resilience engineering focuses on people at all levels of organizations creating safety through practices and considers safety as the positive presence of something (Dekker et al. 2008). The organizational resilience in complex systems is the outcome of interactions at different layers and has implications on safety (Bergstr¨om et al., 2015), although there are external concerns.

Resilience applies Bayesian networks as the probabilistic models used for decision-making and risk assessment in safety management (Hosseini and Barker, 2016; Hossain et al., 2019). The Bayesian network model apply to assess resilience of engineer systems (Yodo and Wang, 2016) And organizational resilience. Ensuring organizational resilience in financial constrained environments requires of innovative approaches and methods.

To measure resilience engineering can be used the RAG questionnaire that does not leads to prescribe standardized meanings or balance to create a hierarchy based on abstractions and develop an approach

ADAPTIVE INNOVATION STRATEGIES

Adaptation in organizational resilience is defined as the change in significant organizational attribute, as in the case of basic business strategy and organizational structures to respond to environmental change (Levinthal,1994, p. 171). Resilience is defined as an organizational ability and operational and strategic capabilities using different research methods, focused on specific problems in different contexts (Ismail et al. 2011). Resilience is an accumulation of vulnerability, coping capacity and strategies in an organizational context (Wedawattaa et al. 2010).

The organizational resilience capability is an essential quality developed to realize competitive advantage through the strategic use of resources and capabilities aimed to strategically challenge and cope adverse events and conditions and avoid resource collapse (Manfield & Newey, 2015). Resilience is the outcome of various mechanisms for family and non-family as equifinality, considered as the ability of organizations to align strategies in competitive advantages (Acquaah et al. 2011). Organizational resilience is a strategic initiative to change operations and increase competitiveness (Sheffi and Rice 2005)

Recent approached on organizational resilience focus on strategies as a sources (Reinmoeller and van Baardwijk, 2005; Carmeli and Markman, 2011) or processes (Alesi, 2008; Crichton et al. 2009; Ates and Bititci 2011; Demmer et al. 2011). Resources available and strategy have an impact on development of organizational resilience capability to maintain across a range of operating conditions. Organizations operating at the edge develop capabilities of resilience and exploration, amongst others and pursue strategies of turnover and external search (Marcus and Nichols 1999)

Strategic organizational resilience is a form of strategic responsiveness (Burnard and Bhamra, 2011) achieved through the development and adjustments of new and existing resources in response to the unstable economic conditions (Suire and Vicente, 2014). Organizational responses under conditions of resource dissipation using resilience orientation can be more incoherent and with strategic purpose.

Organizational resilience capability enacts distinct sets of heuristics applied to organizations striving to regain stability supported using sufficient resources and strategic cohesion. Heuristics as a capability contributing to resilience navigates in the uncertainty context of information processing and decision making towards enhancing strategies and the improvement of performance (Gigerenzer & Gaissmaier, 2011; Bingham & Eisenhardt, 2011; Eisenhardt, Furr, & Bingham, 2010). Heuristic-based capabilities and routine-based capabilities allow the organizations to operate under conditions of instability and to cope with strategic uncertainties leading to collapse

Building organizational resilience requires sufficiency of resources and strategic coherence considering the operating stability. Resilience resources are those with low or no-codependences sustained during a strategic resource collapse and recovery. Any organizational collapse goes through the stages of the one encouraged by survivors to leverage the legal assets, anticipated shocks that cause collapse of resources and the strategy of stripping resource consuming to sustain for a large period. Building organizational resilience withstand and grow from repeated shocks when the organization lessen its vulnerability to the volatility collapsing its resources and strategy.

Organizational resilience is concerned with reinvention, responsiveness, strategic formalization of activities, planned interventions and informed experiences to support survival, growth, and maturity through events of crises. These crises are shaped by events embedded by attitudes, experiences, location, networks, etc. However, organizational resilience is the sum of partial strategic and operational activities (Ismail *et al*. 2011; Välikangas and Romme, 2012). The dimensions of resilience are operational as the bounce back following a disaster and strategic resilience aiming to turn threats (Välikangas & Romme 2012).

Organizational resilience is being achieved through the alignment of the strategic and operational levels of the organization, such as manufacturing and competitive strategies (Acquaah *et al*. 2011) and finding the balance between expansive strategies and governance issues Carmeli and Markman 2011), growing and capitalizing upon market trends and at the same time meeting the market demands (Ismail *et al*. 2011).

Organizational resilience building requires complementary strategies to reliance building. Organizational resilience awareness should be nurtured and enhance strategic renewal (Johnson, Elliott, and Drake, 2013; Chan, 2011; and Gunasekaran, Rai, and Griffin, 2011). Strategic renewal is a form of organizational resilience (Demmer, Vickery, and Calantone, 2011). Strategic organizational renewal can achieve resilience sustaining renewal and performance amidst a turbulent environment (Acar and Winfrey 1994)

An organization may have a low level of strategic resilience formalization based on personal network relationships associated to social capital in the event of disruptions and interruptions (Gao, Sung, and Zhang, 2013; Jüttner and Maklan, 2011; Powley, 2009; Bowey and Easton, 2007). Newly created organizations may have low levels of strategic resilience formalization leading to new directions in the roles of location and social networks in shaping the identity between organizational level and regional resilience.

Low level of organizational resilience formalization with high values for measures is related to personal networks while high level of organizational resilience formalization with low personal network measures is not essential for strategic resilience formalization. Organizational resilience reintegration operate disorganization simplifying on emerging strategy in uncertain and ambiguous environments

Increase of organizational resilience is achieved by pursuing mitigating strategies aimed to balance competing objectives, reducing costs in disruptive events, addressing the vulnerability and impact of known and unknown risks, and harden the organizational system against other threats. Organizational resilience incorporates adaptation strategy changes according to the organization resilience changes (Clement and Rivera 2017). Securing resilience requires a robust creativity as the ability to anticipate and adapt to critical strategic change (Marwa and Milner, 2013).

Resilience is a change management capability that increases through sensebreaking initiatives of change to respond to external shocks disrupting strategic initiatives (Mantere et al. 2012). The balance of adaptive innovation strategies achieves resilience as the capability to self-renew through innovation (Reinmoeller and van Baardwijk 2005).

Organizational resilience is a functioning of an ongoing methodological pursuit of capture and governance strategies (Carmeli and Markham, 2011). Organizational resilience is the ability to effectively manage a crisis while finding the silver lining of strategic opportunity (Vargo and Seville, 2011). The organizational resilience is unique for each organization which requires unique implementation, although there may be some common attributes, behaviors, dimensions, and strategies.

In the context of organizations, communications timing and message strategies facilitates organizational resilience and influences the subsequent behavioral outcomes including the role work performance during crisis situations. Organizational resilience is the ability of the company to make sense of its environment, generate strategic options and realign its resources faster than its rivals for decisive advantage (Ates and Bititci, 2001).

Another contextual factor of the behavioral domain of organizational resilience is the influence of national culture on shared purpose and value which influences strategic choice and leadership styles (Acar and Winfrey, 1994; Wright *et al*. 2009; Collis, 1991). A methodological approach to organizational culture embedded in continuous management incorporating strategic planning may enhance organizational resilience in the pursuit of mitigation of l risks (IBM Corporation, 2004). Companies establish corporate cultures which facilitate information, establish organizational objectives, design, and implement strategies empowered by better vision, foresight, and knowledge.

The development of culture and strategy for resilience vary between organizations and have higher impact that the engineering for resilience. Other factors suggested by other authors are organization transparency, risk interdependencies, development of viability in the organization, alignment between the strategy and the objectives, organizational knowledge on resilience, situation awareness, uses of situation awareness, and measures to evaluate resilience (Starr *et al.* 2003).

Organizational leadership that demonstrates qualities and commitment to manage risks and prepares for the unexpected disturbances to be able to implement collaborative strategies in a collaborative effort to enhance and increase organizational healthy culture and resilience. Servant leadership and culture, change ready and networks relationships are independent attributes The networks of internal and external relationship are identified by the indicators of effective partnerships, leveraging knowledge, breaking silos, and internal resources.

Organizational contingency planning is a strategy to enhance organizational resilience to be adopted in emergency (McManus et al., 2008). Organizational contingency planning is a strategy aiming to boost the organizational resilience by salutogenic approach based on mapping organizational assets to organizational continuity planning is a strategy for a collaborative process to engage community and organizational members as an empowering process to be beneficial in health research (Israel, Schulz, Parker, & Becker, 1998).

Planning enables change in the organization identified by the indicator's unity of purpose, proactive posture, planning strategies and stress testing plans. Business planning is a strategy to promote and enhance the organizational resilience capabilities to persist and maintain operations during a crisis (Speight, 2011). Strategic planning and development and crisis management planning may enhance organizational resilience. Strategic management must include stability, change and organizational resilience.

Moreover, organizations may have a limited range of strategic resilience planning activities and resources of formal activities rather the exercises of capabilities to respond, which may offer differential of organizational resilience continuity. Strategic planning activities not necessarily results in social capital required for the capability of organizational resilience. However, other planners consider that location, personal networks, and relationships are not relevant for resilience although they value the ability to intervene in the formalization of strategic resilience planning activities.

Resilience systems have been linked to some features able to respond any type of events, anticipate future threats and opportunities, learn from the past, and monitor the solutions and be able to promote proactive strategies (Rankin, Lundberg, and Woltjer, 2014; Praetorius, Hollnagel, 2014). Resilience is proactive organizational ambidexterity with an ongoing function, methodological pursuit, and governance strategies. Based on history of Rome, Carmeli and Markman (2011) identify generic as expansion strategies and governance strategies aligned for organizational resilience. Organizational resilience is a positive and forward-looking more than defensive strategic enabler for more flexible, anticipating, and proactive organizations taking advantage of opportunities.

The development of organizational resilience can be strengthening by practices of strategic human resources management. Strategic human resources development enhances organizational resilience (Lengnick-Hall et al. 2011). Organizational resilience focuses on defensive and progressive behaviors that are adopted by organizations as strategies to attempt to occur or stop events to occur. Organizations performing well during a crisis and disaster may learn to take precautionary actions to overcome failures from future emergencies and recover from disruptions (Timmerman, 1981).

Organizational resilience is the capability of strategic awareness to face of internal and external disruptions of unexpected events (Annarelli and Nonino, 2016) by linking operational management. Organizational resilience is the capabilities of the firm to align their manufacturing strategies to competitive strategy resulting in competitive advantage and superior performance. Organizational resilience is an organizational performance indicator considering and emphasizing the stage of the life cycle of the organization and accordingly to strategies (Kiuchi and Shireman 1999)

Organizational resilience is the ability to align manufacturing strategies to competitive strategy to gain a competitive advantage (Acquaah et al. 2011). Results from resilience strategies are related to actions of ecology. Organizational resilience needs of Organizational change management and strategic planning processes focus on entrepreneurship (Ates and Bititci, 2011; Demmer, et al. 2011). Organizational resilience is associated with entrepreneurial responses in strategic renewal (Chan 2011; Suire and Vicente 2014).

Climate change vulnerabilities and weather extreme events may occur more intensely and frequently requiring the integration of disaster and crisis management and organizational strategic designing and implement organizational resilience and adaptation strategies (Preble, 1997). Resilience is the response for changes an adaptation to the environment depending on temporal. Organizational adaptation to climate change requires resilience thinking based on the design of the system to proactively change the turbulence of shocks (Beermann 2011)

Local business has different resilience strategies after crises and disruptions depending on their resources considering the capacity to survive, adapt and grow in turbulent times (Lengnick-Hall et al. 2011; Sutcliffe and Vogus 2003; Dahles and Susilowati 2015). The concept of resilience is used by organizations to precipitate development of capabilities for strategic formalization of the entrepreneurial context. Clusters of organizations SMEs share characteristics as potential strategically resilient formalization of planning activities. Small- and medium sized enterprises (SMEs) resilience is shaped by historical, developmental, and strategic factors associated with operational disruptions, crisis recovery and strategic renewal and develops a growth-survival-maturity (Herbane, 2019; Blundel, 2013; Herbane, 2013; Doern, 2016).

Experiences in organizational resilience in SMEs conceptualized in strategic planning, and the conditions shaping entrepreneurial activities, lead to survival, transformation, and growth. Strategic planning is linked organizational resilience and performance associated with the improvement of responses to any acute interruption.

Strategic renewal and organizational resilience in SMEs contribute to analyze the entrepreneurial activities in relation to crisis, between resilience and social capital in networks (Gao, Sung, and Zhang, 2013; Jüttner and Maklan, 2011; Powley, 2009). The strategic renewal of SMEs' resilience is characterized by the reinvention (Demmer, Vickery, and Calantone, 2011; Gunasekaran, Rai, and Griffin, 2011).

The strategic and resilience planning in SMEs can be measured in different dimensions and functional areas and vision and mission statements (O'Regan and Ghobadian, 2007; Peyrefitte, 2012; Williams, 2008). Attitudes about the value of strategic planning of SMEs are related to organizational resilience and performance, although there is not clear evidence of how strategic and resilience planning correspond to factors that influence the organizational resilience and adoption of enhancing activities.

More tactical methods and approaches to strengthening organizational resilience in specific areas such as chain supply are not well developed as it was demonstrated during the recent pandemic crisis, in part due to the lack of data and collaboration across functional areas, high costs and inability to measure the strategic benefits (Marchese and O'Dwyer, 2014). Organization and planning activities are needed prior to, during and after the disaster. The indicators of these activities to measure the organizational resilience, proposed by Stephenson (2010), are the planning strategies, participation in exercises, proactive posture, external resources, and recovery priorities.

A synergistic approach to organizational resilience is a strategic proactive approach than incorporate crisis and risk management.Principio del formulario Organizational resilience develops to spring back from unexpected events that lead to decreases in market share and profits and interrupts its ability to continue operations to meet the expectations of the shareholders.

The conceptualization of organizational resilience is related to the measurement by the inputs and outcomes of specific variables, which makes empirical research not an accumulative based on one construct and the analysis based on different features (Kendra & Wachtendorf, 2003). Organizational resilience measurement advances may be based on resilience engineering, moving from the resilience conceptualization, indicators to measurement.

Focusing on strategic management, the multidimensional measurement scale of McCann *et al*. (2009), define companies that are able to deal with turbulence as having high AR; second-order construct, latent and reflective with two first order constructs, resiliency y agility. Cross-scale interactions incorporated into the perspective as organizational resilience is dependent upon the upper and lower scales in terms of organizational context to influence strategic issues and create goal conflicts (Hollnagel et al. 2006).

Organizational resilience requires the strategic agility aimed to exploit unexpected opportunities. Resilience capacity developed by the cognitive, behavioral, and contextual dimensions enhance the strategic agility to cope with disruptions (Lengnick-Hall & Beck, 2009: 44). Resilience is strategic and operational agility. Development of organizational strategic agility leads to capabilities that meet market demands and alternative options for growth (Ismail et al. 2011). Resilience capacity moderate strategic agility to performance (Lengnick-Hall & Beck, 2009: 66). However, is not clearly specified the relation of dimensions to the overall construct, however, AR is measured at the first-order construct level in further analysis.

CONCLUSION

This analysis concludes that innovative adaptation and engineering resilience strategies achieve organizational resilience as the capability to self-renew through innovation. Strategic organizational resilience is an imperative for the survival imputing applications to deal and mitigate with risks. The shift to organizational resilience as the recovery from adversity unlocks new value to focus on the organizational transformation and innovation driven to aid through adverse conditions. While engineering resilience is related to system stability, evolution focuses on change and growth of a system.

Organizational resilience is the capability to anticipate the outcome, respond to risks and adapt to complex, uncertain, and changing environmental conditions. Organizational contingency planning is a strategy aimed to promote and enhance organizational resilience. The empirical study on organizational resilience and continuity planning using a resource and asset-based approach facilitate the development of contingency planning strategy.

More empirical research on organizational resilience is needed to demonstrate the value of the contingency planning strategy that emphasizes the risks and vulnerabilities of the organization rather that the availability of assets and resources (Speight, 2011).

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Chapter 10

Mindfulness Business Principles:
Producing Outstanding Value and Encouraging Community Connections

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ABSTRACT

There is an unprecedented pressure that both individuals and businesses endure, especially when considering changes and challenges brought by the COVID-19 pandemic and the COVID-19 crisis. Mindfulness seems to become an integrated part of people's lives, in the attempt to be more concentrated on their daily tasks, more focused on living in the present moment, more determined to eliminate anxiety and stress. In like manner, mindfulness in business seems to become a key solution to stronger entrepreneurship and highly successful workplace relationships. Thus, the new economy, the knowledge-based economy, centers its attention on the powerful links and opportunities that may be encountered between well-being, mental health, and mindfulness, seeking a way to create valuable mindfulness business principles, capable of producing outstanding results, empowering people, facilitating cooperation, allowing good governance, inducing corporate social responsibility, fostering community connections, enabling competitiveness, and supporting sustainability, development, and environmental balance.

INTRODUCTION

These days, "making the most of the knowledge economy" – considered by renowned specialists worldwide "the main driver of global growth in the future", represents the key to a bright future (Organization for Economic Co-operation and Development (OECD), 2014, p. 6). Hence, countries' attention should focus intensely on accelerating the process of global integration by taking into consideration pivotal elements among which could be brought into discussion the following ones: (a) furthering "multilateral trade and investment agreements and pursue migration policies"; (b) centering on ensuring productivity and facing

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"demographic shocks" with the aid of "social insurance reforms" strong enough "to maintain labor supply"; (c) addressing the issues arising from the "strong demand for education and skills", which leads to the importance of long-life-learning programs, workshops and training sessions; (d) favoring creativity, innovation, research and development, in order to enable organizations to develop at a fast pace and be capable to adapt successfully to the new marketplace trends; (e) aiming "cross-country mobility"; and (f) concentrating on ensuring well-being, prosperity, sustainability, environmental balance and climate change mitigation (Organization for Economic Co-operation and Development (OECD), 2014, pp. 6-7) (see Figure 1. Characteristics, challenges and solutions in the knowledge economy).

Figure 1. Characteristics, challenges and solutions in the knowledge economy
Source: the author

In continuation to the aspects mentioned above, the European Union (EU) document on the "European pact for mental health and well-being", acknowledges "the importance and relevance of mental health and well-being for the European Union, its Member States, stakeholders and citizens", adding that "mental health is a human right. It enables citizens to enjoy well-being, quality of life and health", since "it promotes learning, working and participation in society" (European Union (EU), 2008, p. 2). What is more, as highlighted at the EU High-Level Conference "Together for mental health and wellbeing", that took place in Brussels, on the 12th and the 13th of June 2008 (European Union (EU), 2008, p. 2): "The level of mental health and well-being in the population is a key resource for the success of the EU as a knowledge-based society and economy. It is an important factor for the realization of the objectives of the Lisbon strategy, on growth and jobs, social cohesion and sustainable development." Hence, based on recent statistics, it was noted that there is a critical "need for a decisive political step to make mental health and well-being a key priority", while "action for mental health and well-being at EU-level needs to be developed by involving the relevant policy makers and stakeholders, including those from the health, education, social and justice sectors, social partners, as well as civil society organizations" (European Union (EU), 2008, p. 3).

Nowadays, as stated by the Organization for Economic Co-operation and Development (OECD) in the 2019 document entitled "The European Union: A people-centred agenda. An international perspective", a major priority in the attempt of "furthering economic integration" is to make "Europe more resilient in a digital and interconnected world" (Organization for Economic Co-operation and Development (OECD), 2019, p. 22).

- In this case, it should be noted that, based on recent EU statistics, the Single Market – which aimed "for free movement of people, goods, services and capital", "has delivered important outcomes", among which could be mentioned, for instance, the raise of Gross Domestic Product (GDP) when taking into consideration "both the direct trade and competition effects" (Organization for Economic Co-operation and Development (OECD), 2019, p. 22).
- Additionally, it should be brought into discussion the fact that another advantage bought during the last years by the Single Market to the EU citizens refers to offering consumers more and better products and services at lower prices (Organization for Economic Co-operation and Development (OECD), 2019, p. 22). A good example in this case is provided by the "electricity markets" which benefited from "greater interconnectedness" due to the Single Market, thus leading to the possibility to offer "lower electricity prices for consumers" (Organization for Economic Co-operation and Development (OECD), 2019, p. 22).
- With reference to the EU Single Market it can be remarked that it is still "a work in progress and its potential benefits still remain large", especially in the new economy and the economy based on knowledge (Organization for Economic Co-operation and Development (OECD), 2019, p. 22). Taking the case of the Single Market for services there are notable changes in terms of market growth and the EU member countries' national policy reforms alignment to the EU rules. All these steps taken are meant to reduce those "unnecessary costs that result from restrictive or widely divergent national regulatory standards" and facilitate a free flow of goods and services across the market, investments, businesses development and businesses creation, thus increasing productivity and facilitating the appearance of "new and better jobs" (Organization for Economic Co-operation and Development (OECD), 2019, p. 22).
- The EU closely supports small and medium-sized enterprises (SMEs), offering, in this manner, a great help to people in developing their competences and skills especially in the digital era, and to businesses in improving productivity, sales, goods and services distribution (Organization for Economic Co-operation and Development (OECD), 2019, p. 14, p. 22). Also, by encouraging the development of SMEs the EU demonstrates the will to foster competition, entrepreneurship, creativity, innovation, and job creation, thus enabling diversity in terms of products and services for the consumers, markets accessibility and flexibility, economic growth, sustainable development (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).

The Organization for Economic Co-operation and Development (OECD) published in July 2014 the document entitled "Policy Challenges for the Next 50 Years", an OECD Economic Policy paper, belonging to the series OECD Economic Policy Papers, in which several key challenges specific to the new economy, the knowledge economy can be encountered (Organization for Economic Co-operation and Development (OECD), 2014, p. 5). Also, the Organization for Economic Co-operation and Development (OECD) published in 2019 a document entitled "The European Union: A people-centred agenda. An international perspective", in which numerous vital challenges and changes specific to the new economy, the knowledge economy can be acknowledged (Organization for Economic Co-operation and Development (OECD), 2019) (see Figure 2. Knowledge society and economy and the balance between mental health and well-being).

Figure 2. Knowledge society and economy and the balance between mental health and well-being
Source: the author

As mentioned by the Organization for Economic Co-operation and Development (OECD), there are different challenges with which the "OECD and partner economies" will confront themselves "over the coming 50 years" when referring to "global trends relating to growth, trade, inequality and environmental pressures prevail" (Organization for Economic Co-operation and Development (OECD), 2014, p. 5). In continuation, the Organization for Economic Co-operation and Development (OECD) shows a great concern "to what extent national structural policies can address these and other interlinked challenges, but also points to the growing need for international coordination and cooperation to deal with these issues over the coming 50 years", thus acknowledging the new changes derived from the new global economy, the knowledge economy and the continuous digitalization of the economy (Organization for Economic Co-operation and Development (OECD), 2014, p. 5).

Taking into consideration recent studies and statistics belonging to the Organization for Economic Co-operation and Development (OECD), there are several issues that require mentioning, thus leading to governments' need to take immediate constructive actions:

Step 1: Revitalizing the world economy, since countries worldwide are still under the influence of the financial and economic global crisis which severely affected the general international balance (Organization for Economic Co-operation and Development (OECD), 2014, p. 6).

Step 2: Focusing on diminishing the unemployment rates, since, for instance, the unemployment rates in the OECD countries are still at a high level, while the "productive capacity in the region has deteriorated" (Organization for Economic Co-operation and Development (OECD), 2014, p. 6).

Step 3: Recovering and minimizing risks based on robust monetary policies seeking and targeting fiscal consolidation are needed at an international level in order to enhance "stability in the financial sector" (Organization for Economic Co-operation and Development (OECD), 2014, p. 6).

Step 4: "Growth- promoting structural reforms are needed, in both OECD countries and many emerging economies" (Organization for Economic Co-operation and Development (OECD), 2014, p. 6).

Step 5: Integrating emerging economies "in the world economy" represents a pivotal priority, since "economic growth will continue to lift masses of people out of poverty" – see, in this matter, the cases of Asia (Organization for Economic Co-operation and Development (OECD), 2014, p. 6).

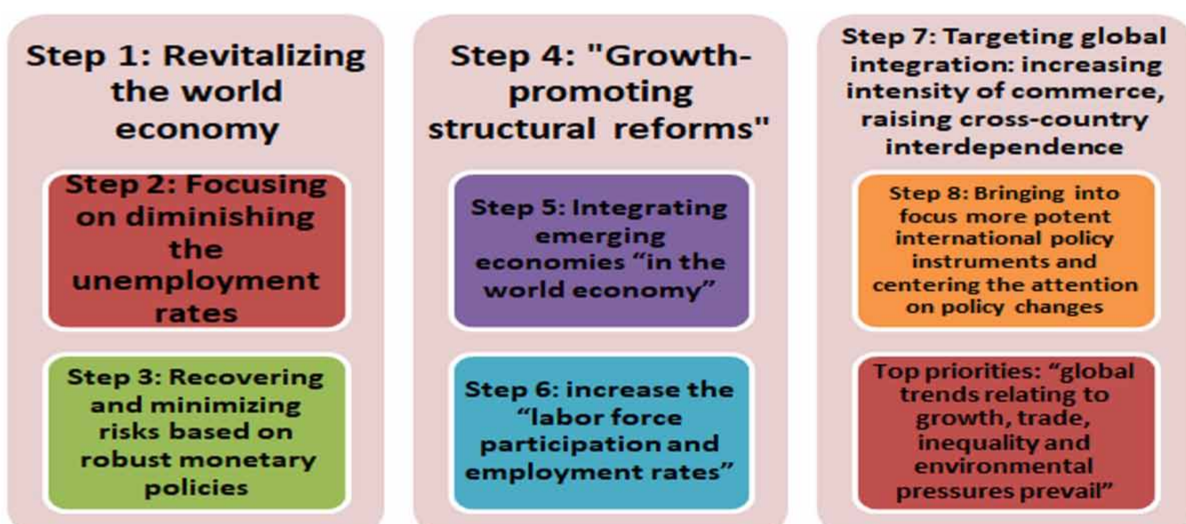
Step 6: Concentrating the attention on the damaging effects of population ageing and the future potential of the labor force, thus attempting to increase the "labor force participation and employment rates" and anticipating that "future gains in GDP per capita will become more dependent on accumulation of skills and, especially, gains in multifactor productivity driven by innovation and knowledge based capital" (Organization for Economic Co-operation and Development (OECD), 2014, p. 6).

Step 7: Targeting global integration, based on increasing the intensity of commerce, raising the cross-country interdependence, focusing on evaluating the capital's intensity and the "consumption patterns of emerging economies" as well as the "production structures in these economies" (Organization for Economic Co-operation and Development (OECD), 2014, p. 6).

Step 8: Bringing into focus more potent international policy instruments and centering the attention on policy changes required by a continually challenging international environment characterized by the need to ensure climate change mitigation, sustainability, performance, growth, resilient institutions, and coherent social reforms (Organization for Economic Co-operation and Development (OECD), 2014, p. 6) (see Figure 3. Steps that require immediate constructive actions).

Figure 3. Steps that require immediate constructive actions

Source: the author, based on Organization for Economic Co-operation and Development (OECD) document published in 2014



Global integration brings to light "the growing importance of knowledge based capital for growth" which implicates a few main issues, among which could be mentioned: the desire to increase international cooperation in terms of research, development and innovation; and the need to face the challenges derived from creating "knowledge-intensive" organizations, capable to become major players in the global economy based on the power of intangible assets – such as, intellectual property, know-how, human resources, and intellectual capital (Organization for Economic Co-operation and Development (OECD), 2014, p. 8). What is more, the growing importance of intangible assets, in general, and of intellectual capital, in particular, has been acknowledged in the scientific works of specialists for several years by now, raising awareness towards the need to foster innovation, creativity, research, and development in order to ensure entities success, effectiveness, productivity, performance and even excellence (Popescu & Dumitrescu, 2016a; Popescu & Dumitrescu, 2016b; Popescu & Popescu, 2018a; Popescu & Popescu, 2018b; Popescu & Popescu, 2019a; Popescu & Popescu, 2019b; Popescu et al., 2017a; Popescu et al. 2017b; Popescu et al. 2017c; Popescu et al. 2017d; Popescu et al., 2015; Popescu et al., 2016; Popescu et al., 2008; Popescu et al., 2012; Popescu et al., 2015). Furthermore, even though the COVID-19 pandemic and the COVID-19 crisis brought serious challenges and, maybe once, unimaginable changes to the business environment, specialists believe that mindfulness principles will have the power to make individuals more aware of the importance of their own mental health, well-being and inner-balance, which, in turn, will lead to more responsible decisions and actions towards businesses and society (Popescu & Dumitrescu, 2016a; Popescu & Dumitrescu, 2016b; Popescu & Popescu, 2018a; Popescu & Popescu, 2018b; Popescu & Popescu, 2019a; Popescu & Popescu, 2019b; Popescu et al., 2017a; Popescu et al. 2017b; Popescu et al. 2017c; Popescu et al. 2017d; Popescu et al., 2015; Popescu et al., 2016; Popescu et al., 2008; Popescu et al., 2012; Popescu et al., 2015).

As mentioned by Meredith (2017) in the article "Worldwide inequality has risen in nearly every region since 1980, study says", there is a wide gap between reach and poor individuals at the level of the entire planet, which has accentuated dramatically and rapidly over the last four decades. In continuation, the World Inequality Lab (2017) published the document on "World Inequality Report 2018: Executive Summary", in which it was noted that: "Economic inequality is widespread and to some extent inevitable. (…) income inequality has increased in nearly all world regions in recent decades, but at different speeds. The fact that inequality levels are so different among countries, even when countries share similar levels of development, highlights the important roles that national policies and institutions play in shaping inequality" (World Inequality Lab, 2017, pp. 4-5). What is more, the document on "World Inequality Report 2018: Executive Summary" highlights a key question concerning poverty and inequalities, focusing on the following decisive aspect: "How has inequality evolved in recent decades among global citizens?" (World Inequality Lab, 2017, p. 7). Furthermore, the document on "World Inequality Report 2018: Executive Summary" manages to "(…) provide the first estimates of how the growth in global income since 1980 has been distributed across the totality of the world population. The global top 1% earners has captured twice as much of that growth as the 50% poorest individuals. The bottom 50% has nevertheless enjoyed important growth rates. The global middle class (which contains all of the poorest 90% income groups in the EU and the United States) has been squeezed." (World Inequality Lab, 2017, p. 7).

In the lines below the dominant challenges for businesses are displayed in terms of the COVID-19 pandemic and the COVID-19 crisis impact on the new economy development and societal change (see Table 1. Dominant challenges for businesses: COVID-19 pandemic and COVID-19 crisis impact on new economy development and societal change):

Table 1. Dominant challenges for businesses: COVID-19 pandemic and COVID-19 crisis impact on new economy development and societal change

Challenges	Dominant Challenges for Businesses and COVID-19 Pandemic and COVID-19 Crisis Impact on New Economy Development and Societal Change
Challenge no. 1:	• Offering consumers increased benefits: a wide range of goods and services; good quality products and services; affordable prices for products and services (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).
	• Offering businesses the possibility to develop and become more competitive and flourish with the help of consumers and based on consumers' perceived satisfaction (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).
Challenge no. 2:	• Anticompetitive behavior and anticompetitive actions which affects both consumers and businesses (especially SMEs) (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).
	• Anticompetitive actions which affects both consumers and businesses (especially SMEs) (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).
Challenge no. 3:	• Discovering better solutions to develop, "to grow and to innovate within the Single Market" (especially for SMEs), as stated in the EU's "Small Business Act" (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).
	• Improving entrepreneurship, removing barriers that discourage business development and facilitating organizations' possibility to compete on equal levels (especially for SMEs) (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).
Challenge no. 4:	• Reducing gender inequalities, by offering women the opportunity to succeed in entrepreneurship, thus supporting women's creativity, women's entrepreneurial potential and women's initiatives in business (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).
Challenge no. 5:	• Creating and supporting a more inclusive and a more sustainable and a more resilient business environment, which should be characterized by increased accessibility for producers and consumers, enlarged flexibility, expended competitive activities capable to support competitiveness actions and performance (Organization for Economic Co-operation and Development (OECD), 2019, p. 33).
Challenge no. 6:	• Finding viable solutions to climate change and taking climate measures (Organization for Economic Co-operation and Development (OECD), 2019, p. 37).
	• Step taken: Reducing carbon emissions (Organization for Economic Co-operation and Development (OECD), 2019, p. 37, p. 40).
	• Step taken: Reducing greenhouse gas emissions (Organization for Economic Co-operation and Development (OECD), 2019, p. 47).
	• Step taken: Improving air quality (Organization for Economic Co-operation and Development (OECD), 2019, p. 38, p. 40).
	• Step taken: Using "offshore wind to generate renewable electricity" in the EU (Organization for Economic Co-operation and Development (OECD), 2019, p. 38).
	• Step taken: Reducing pollution from agriculture (Organization for Economic Co-operation and Development (OECD), 2019, p. 47).

Continued on following page

Table 1. Continued

Challenges	Dominant Challenges for Businesses and COVID-19 Pandemic and COVID-19 Crisis Impact on New Economy Development and Societal Change
Challenge no. 7:	• Finding solutions capable to support sustainable resources (Organization for Economic Co-operation and Development (OECD), 2019, p. 41).
	• Finding solutions capable to support agriculture and the implementation of a specific mix of policies meant to help agriculture develop, aiding in this manner to “improve the productivity, sustainability and resilience of the food and agriculture sector” (Organization for Economic Co-operation and Development (OECD), 2019, p. 42).
	• Finding solutions capable to support biodiversity, especially in areas where farms are positioned (Organization for Economic Co-operation and Development (OECD), 2019, p. 41).
	• The new digitalized economy affects also the development of the agriculture sector as a whole. Thus, solutions must be found in order to digitalize the agriculture sector, in order to find new, improved solutions that would offer tremendous benefits to “producers, consumers and society overall” (Organization for Economic Co-operation and Development (OECD), 2019, p. 42). Also, it should be highlighted in the same context that: “Increasing investment in innovation and taking advantage of digital technologies would bolster the productivity of the agriculture sector” (Organization for Economic Co-operation and Development (OECD), 2019, p. 42).
	• In order to “build a smarter, modern and sustainable CAP” it should be taken into consideration “a long-standing need to improve the understanding of the financial and well-being situation of European farm households” (Organization for Economic Co-operation and Development (OECD), 2019, p. 42).
	• Discovering solutions capable to address “the income and well-being status of farm households across the EU” (Organization for Economic Co-operation and Development (OECD), 2019, p. 42).
	• Step taken: “Following successive Common Agricultural Policy (CAP) reforms, financial support to European farmers as a share of their farm revenues has been significantly reduced over the past two decades” (Organization for Economic Co-operation and Development (OECD), 2019, p. 41).
	• Step taken: “On the whole, the Common Agricultural Policy has progressively strengthened its environmental and climate ambition to support more environmentally sustainable agriculture. As a result, some environmental pressures have decreased often more quickly in the EU than in OECD countries on average” (Organization for Economic Co-operation and Development (OECD), 2019, p. 41).
Challenge no. 8:	• Moving towards a circular economy (Organization for Economic Co-operation and Development (OECD), 2019, p. 38).
	• In the case of the EU, based on the EU “Circular Economy Action Plan”, the “continuous progress in EU countries and an overall good performance at EU level in implementing waste rules” can be noted (Organization for Economic Co-operation and Development (OECD), 2019, p. 38).
	• In the case of the EU, while addressing the problems derived from the “diffuse pollution from agriculture”, the EU efforts “to attain a good ecological status of water bodies” should be displayed (Organization for Economic Co-operation and Development (OECD), 2019, p. 38).
Challenge no. 9:	• Facilitating international cooperation in science and technology, in order to cope with “global issues (e.g., environmental protection, energy security, natural disaster mitigation, preventing and curing infectious diseases, ensuring food security)” and find “effective solutions” and, in the same time, “actively building and enhancing research capacity to create and utilize the new knowledge that is essential for their economic growth, and for addressing the local manifestations of global-scale problems” (Organization for Economic Co-operation and Development (OECD) Global Science Forum, 2011, p. 3).

Continued on following page

Table 1. Continued

Challenges	Dominant Challenges for Businesses and COVID-19 Pandemic and COVID-19 Crisis Impact on New Economy Development and Societal Change
Challenge no. 10:	• General global trends, such as "growth, trade, inequality and environmental pressures", are the ones that will prevail in the near future, which leads to specific worries on how "national structural policies can address these and other interlinked challenges" (Organization for Economic Co-operation and Development (OECD), 2014, p. 5).
	• Based on the Organization for Economic Co-operation and Development (OECD) documents, there are several challenges that globalized economies are already beginning to face, a good example in this regard being represented by the "global growth" which "is likely to slow and become increasingly dependent on knowledge and technology, while the economic costs of environmental damages will mount" (Organization for Economic Co-operation and Development (OECD), 2014, p. 5).
	• Also, based on the Organization for Economic Co-operation and Development (OECD) documents, knowledge will become more and more important at the level of all economies, in particular, given the fact that knowledge is believed to be probably the most valuable asset that an organization and a country hold, which, in turn, "will tend to raise returns to skills, likely leading to further increases in earning inequalities within countries" (Organization for Economic Co-operation and Development (OECD), 2014, p. 5).
	• In continuation to all the aspects mentioned in the lines above, the Organization for Economic Co-operation and Development (OECD) documents noted the "substantial fiscal pressures" felt by national economies worldwide, which, in turn, will lead to the "rising mobility of tax bases", making governments extremely sensible and vulnerable to the highly damaging perspective of "rising income inequality" (Organization for Economic Co-operation and Development (OECD), 2014, p. 5).

Source: the author, based on the sources cited above

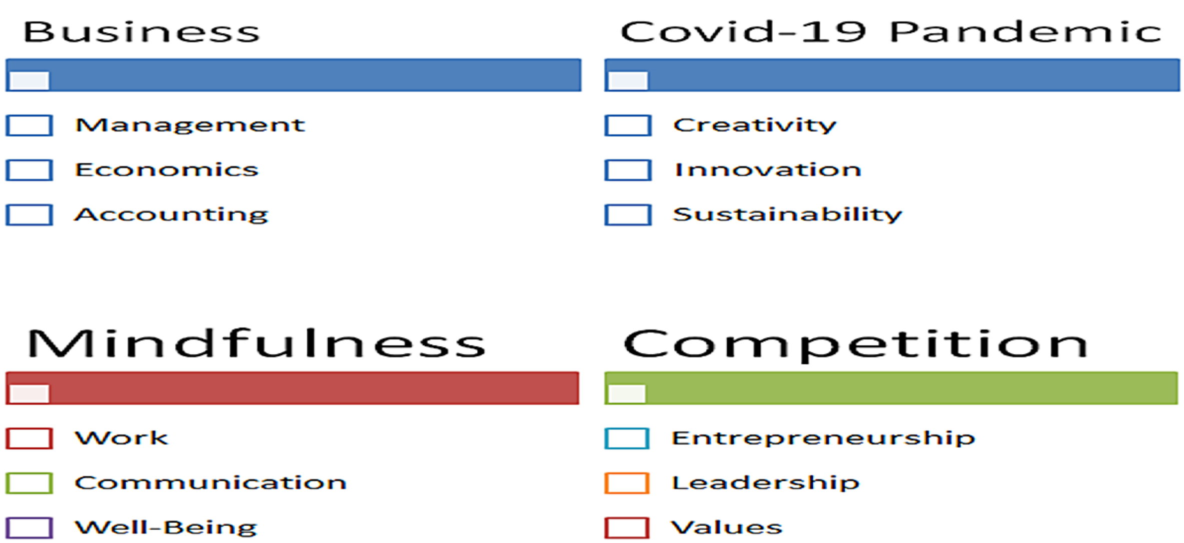
This book chapter entitled "Mindfulness business principles: producing outstanding value and encouraging community connections" has the following structure, as mentioned in the lines below:

1. First of all, the introduction is meant to position mindfulness, in general, and mindfulness in business, in particular, in the general area of this study, namely in the economic sciences and business administration general domain, thus showing the importance of positioning, in this particular case, mindfulness in business in three major spheres of analysis, respectively economics, management and accounting. The introduction is centered on describing the role and the importance of businesses these days, especially when arguing the issues derived from the COVID-19 pandemic impact on the new economy development and the societal change. In continuation, this section brings to light several major problems encountered in the economy, these days, stating the fact that mindfulness in business could be one of the solutions to face the consequences of the COVID-19 pandemic as well as the COVID-19 crisis. Additionally, the introduction contains the major research question (MRQ) of this study as well as the secondary research questions (SRQ), which needs to be referred to through the perspectives and implications of the paper's research objectives (RO).
2. Second of all, the background tackles the most important results encountered in recent studies on mindfulness, in general, and mindfulness in business, in particular, emphasizing several major up-to-date findings belonging to reputed specialists in the field. In this manner, it ought to be noted that the concepts of mindfulness and mindfulness in business are encountered in numerous studies from different domains, fact that positions these terms in several research areas, thus promoting interdisciplinary by relating to numerous braches of knowledge. In addition, it should be stressed that, for instance, mindfulness and mindfulness in business may be addressed also taking into

consideration the perspective of communication, the implications of sociology or the principles of psychology, showing in this way that the initial intended major spheres of analysis, respectively economics, management and accounting, need to be addressed, in fact, at an interdisciplinary level.

3. Third of all, based on the aforementioned major research question (MRQ) of this study, secondary research questions (SRQ), and research objectives (RO), this book chapter includes a third section entitled "Mindfulness in business: definitions, characteristics, importance, and role in the new economy and COVID-19 pandemic era", which is keen in finding answers to three key questions, as follows: (SRQ1) "What is mindfulness?"; (SRQ2) "What does mindfulness in business represents?"; and (SRQ3) "What are the characteristics, the importance and the role of mindfulness in business?".
4. Fourth of all, also based on the aforementioned major research question (MRQ) of this study, secondary research questions (SRQ), and research objectives (RO), this book chapter contains a fourth section entitled "Mindfulness in business: benefits, changes and challenges in the new economy and COVID-19 pandemic era", which places "Mindfulness in business and the power of producing outstanding value", "Mindfulness in business and the art of encouraging community connections" and "What are the most valuable mindfulness business principles?" as major points and major parts of its analysis.
5. Fifth of all, the rest of the sections of this book chapter are centered on the following sections: "Discussion and synthesis of results", "Solutions and recommendations", "Future research directions", "Conclusion", and "References", all of these sections proving to be vital for this approach on "Mindfulness business principles: producing outstanding value and encouraging community connections", as part of the book entitled "COVID-19 Pandemic Impact on New Economy Development and Societal Change".

Figure 4. Pivotal concepts empowering individuals to act in the context of the knowledge economy
Source: the author



There are several keywords and key concepts that prevail in this book chapter on "Mindfulness business principles: producing outstanding value and encouraging community connections" among which could be mentioned the following pivotal ones: business, management, economics, accounting, COVID-19 pandemic, creativity, innovation, sustainability, competition, entrepreneurship, leadership, values, communication, work, mindfulness, and well-being. However, these central keywords and key concepts should be analyzed and taken into consideration together with a few additional keywords and key concepts that find their place perfectly at the level of this scientific book chapter, as follows: globalization, internalization, global economy, international economic structures, growth, development, technological change, digitalization, environmental damages, climate change, fiscal consolidation, structural reforms, interdependence, and global coordination (see Figure 4. Pivotal concepts empowering individuals to act in the context of the knowledge economy).

This current research comes to continue previous researches performed by renown specialists in the field, who have successfully dedicated their researches in order to emphasize the connections that exist between business, management, economics, accounting, COVID-19 pandemic, creativity, innovation, sustainability, competition, entrepreneurship, leadership, values, communication, work, mindfulness, and well-being (Popescu, 2020d; Popescu, 2021a; Popescu, 2021b; Popescu, 2021c; Popescu, 2022a; Popescu, 2022b; Popescu & Duháček-Šebestová, 2022; Popescu & Kyriakopoulos, 2022).

In the lines below the major research question (MRQ), the secondary research question (SRQ), and the research objectives (RO) of this book chapter entitled "Mindfulness business principles: producing outstanding value and encouraging community connections" are illustrated (see Table 2. Major research question (MRQ), secondary research questions (SRQ), and research objectives (RO) of this book chapter entitled "Mindfulness business principles: producing outstanding value and encouraging community connections"):

Table 2. Major research question (MRQ), secondary research questions (SRQ), and research objectives (RO) of this book chapter entitled "Mindfulness business principles: producing outstanding value and encouraging community connections"

Acronym	Major / Main Research Question (MRQ)
(MRQ)	• What are the most valuable mindfulness business principles and in what way mindfulness in business has the power of producing outstanding value, enabling strong community connections?
	Secondary Research Questions (SRQ)
(SRQ1)	• What is mindfulness?
(SRQ2)	• What does mindfulness in business represents?
(SRQ3)	• What are the characteristics, the importance and the role of mindfulness in business?
	Research Objectives (RO)
(RO1)	• Identifying the influence of mindfulness in business, and highlighting the benefits, changes and challenges that mindfulness in business brings in the context of the new economy and the COVID-19 pandemic era.
(RO2)	• Acknowledging the major role and the crucial importance provided by mindfulness in business and understanding the power of mindfulness in business in producing outstanding value.
(RO3)	• Understanding the role of mindfulness in business as the art of encouraging community connections.
(RO4)	• Discovering which the most valuable mindfulness business principles are.

Source: the author

BACKGROUND

The "Background" section of the book chapter "Mindfulness business principles: producing outstanding value and encouraging community connections" tackles the following key aspects, as follows:

- First of all, the background section contains a literature review part which displays the most important results encountered in recent studies on mindfulness, in general, and mindfulness in business, in particular, presenting numerous major up-to-date findings belonging to reputed specialists in the field on the current subject under debate.
- Second of all, given the fact that the concepts of mindfulness and mindfulness in business are encountered in numerous studies from different domains, this current book chapter position these terms in several research areas, thus promoting interdisciplinary by relating to numerous braches of knowledge. Thus, it should be emphasized that, for instance, mindfulness and mindfulness in business may be addressed also taking into consideration the perspective of communication, the implications of sociology or the principles of psychology, showing in this way that the initial intended major spheres of analysis, respectively economics, management and accounting, need to be addressed, in fact, at an interdisciplinary level.
- Third of all, the pivotal concepts of mindfulness and mindfulness in business are also analyzed in relationship with other related key terms represented by mental health and well-being, in the context of health inequalities. Hence, "promoting good mental health and well-being in the population, strengthening preventive action and self-help, and providing support to people who experience mental health problems and their families, further to the measures which Member States undertake through health and social services and medical care" (European Union (EU), 2008, p. 2). Recent studies point out that "mental disorders (…) put pressure on health, educational, economic, labor market and social welfare systems across the EU" (European Union (EU), 2008, p. 2).

Given the fact that the vital concepts of mindfulness and mindfulness in business are also analyzed in this section in relationship with other related dominant terms represented by mental health and well-being, it should be mentioned that the European Union (EU) document on the "European pact for mental health and well-being" stresses the fact that "mental disorders are on the rise in the EU" (European Union (EU), 2008, p. 2). Moreover, based on recent statistics "almost 50 million citizens (about 11% of the population) are estimated to experience mental disorders, with women and men developing and exhibiting different symptoms", while "depression is already the most prevalent health problem in many EU-Member States" (European Union (EU), 2008, p. 2). Furthermore, the European Union (EU) document on the "European pact for mental health and well-being" emphasizes the fact that "there is a need to improve the knowledge base on mental health" (European Union (EU), 2008, p. 3).

The table below displayed a thorough literature review analysis on mindfulness, in general, and mindfulness in business, in particular (see Table 3. Literature review: recent advances in mindfulness and mindfulness in business, and understanding the benefits of interdisciplinary analysis for the concepts mindfulness and mindfulness in business).

Table 3. Literature review: recent advances in mindfulness and mindfulness in business, and understanding the benefits of interdisciplinary analysis for the concepts mindfulness and mindfulness in business

Source	Relevant Details Acknowledged by Specialists in the Scientific Literature
Arendt et al. (2019)	• The research on "Mindfulness and leadership: Communication as a behavioral correlate of leader mindfulness and its effect on follower satisfaction" intends to address the gap that the authors encountered in the studies on mindfulness and more specifically in terms of "the effects of mindfulness on interpersonal interactions and social relationships at work" (Arendt et al., 2019). • Thus, this research concentrates its attention on analyzing "the role of mindfulness in leader–follower relationships" (Arendt et al., 2019). • According to the discoveries presented in this study, the authors acknowledge the positive relationship that was found in the satisfaction of the employees that followed closely the guidance of their leaders using a specific communication style described by the authors as "mindfulness in communication" style (Arendt et al., 2019).
Hafenbrack et al. (2020)	• The authors of the scientific work "Helping people by being in the present: Mindfulness increases prosocial behavior" define the concept of "mindfulness" as "focused, nonjudgmental awareness of the present moment, increases prosocial behavior", which may be associated with the workplace or other similar work-related situations and contexts, depending on the case (Hafenbrack et al., 2020). • In like manner, the authors results derived from their work indicates that individuals that managed to access the state of mindfulness are more oriented, more inclined towards helping their colleagues (Hafenbrack et al., 2020).
Hülsheger et al. (2015)	• The research on "A low-dose mindfulness intervention and recovery from work: Effects on psychological detachment, sleep quality, and sleep duration" concentrates its attention on finding improvement of "employees' recovery processes" after work, based on the fact that there are few studies in this field (Hülsheger et al., 2015). • In this particular context, the authors are investigating the effects as well as "the effectiveness of low-dose mindfulness intervention" for individuals' recovery from work (Hülsheger et al., 2015). • The results of this study argue that both the sleep quality and the sleep duration improved, however there were no effects concerning the psychological detachment of individuals after work (Hülsheger et al., 2015).
Jonsen et al. (2010)	• The study on "Scientific mindfulness: A foundation for future themes in international business" reflects on the themes that might be of interest in the near future, while referring to international management domain, in general, and to international business, in particular (Jonsen et al., 2010). • The authors define in their study the concept of "scientific mindfulness", in order to encourage and forward researches on international management and international business, emphasizing the fact that, according to them, scientific mindfulness represents a "holistic, cross-disciplinary, and contextual approach" (Jonsen et al., 2010). • What is more, the authors note in their work that, due to scientific mindfulness's "multiple perspectives" – as shown in the lines above, there are several benefits that that might be associated with scientific mindfulness, among which could be mentioned the following ones: (1) it facilitates access to "wider perspectives" of analysis, thus imposing "rigor and relevance"; (2) it depends on four dominant forces represented by "climate change, globalization, inequality, and sustainability" – which are, in essence, the four key traits due to be taken into account in all domains these days; and (3) it empowers specialists to have a broader vision when they have to address issues related to international management domain, in general, and to international business, in particular (Jonsen et al., 2010).

Continued on following page

Table 3. Continued

Source	Relevant Details Acknowledged by Specialists in the Scientific Literature
Liu et al. (2021)	• The study on ""Fully recharged" evenings? The effect of evening cyber leisure on next-day vitality and performance through sleep quantity and quality, bedtime procrastination, and psychological detachment, and the moderating role of mindfulness" focuses on "psychological vitality and performance", in the context of "employees' evening cyber leisure on next-day work outcomes" (Liu et al., 2021). • The findings are highly interesting, since the results presented by the authors demonstrate "that evening cyber leisure has contradicting effects on next-day performance and vitality", especially in the context in which they make reference to sleep deprivation and "psychological detachment" from the daily activities and the daily routine (Liu et al., 2021). • In this specific context, mindfulness becomes highly important, since it helps individuals to become more aware of their surroundings and more aware of the implications of their detachment from the daily activities and the daily routine (Liu et al., 2021).
Liu et al. (2020)	• The study on "Motivational analyses of the relationship between negative affectivity and workplace helping behaviors: A Conservation of Resources perspective" presents valuable data gathered from the research performed by the authors in a Spanish telecommunication company (Liu et al., 2020). • The results show that employees' motivation to help their colleagues at work need to be analyzed based on "trait negative affectivity (NA) to workplace helping behaviors", as well as in accordance with the individuals' gender and their organizational seniority at work (Liu et al., 2020). • Thus, the finds reveal that male employees with longer tenure in the organization were inclined to be less helpful in the relationships with their colleagues (Liu et al., 2020).
Popescu, C.R.G. (2017); Popescu, C.R.G. (2018); Popescu, C.R.G. (2019a); Popescu, C.R.G. (2019b); Popescu, C.R.G. (2019c)	• Based on recent literature, work relationships are highly competitive since business environment itself presents many challenges, thus forcing individuals to become less communicative and less tolerant in their day-to-day activities (Popescu, 2017; Popescu, 2018; Popescu, 2019a; Popescu, 2019b; Popescu, 2019c). • Also, the society encourages individuals to rely more and more on their own strengths and capabilities, rather than expect help and understanding from their colleagues and bosses (Popescu, 2017; Popescu, 2018; Popescu, 2019a; Popescu, 2019b; Popescu, 2019c). • Intellectual capital represents one of the most valuable intangible asset of entities these days, which enables people to become more dedicated to achieving better and higher results in terms of learning, perfecting and enlarging their competencies and skills, and being preoccupied with finding more rewarding activities and work places (Popescu, 2017; Popescu, 2018; Popescu, 2019a; Popescu, 2019b; Popescu, 2019c).
Popescu, C.R.G. (2019d); Popescu, C.R.G. (2019e); Popescu, C.R.G. (2019f); Popescu, C.R.G. (2019g); Popescu, C.R.G. (2020a); Popescu, C.R.G. (2020b); Popescu, C.R.G. (2020c)	• Mindfulness in business should include commitment to one-self, commitment for work-colleagues, commitment for fostering a sustainable environment, more resilient cities, more robust policies, capable to ensure well-being, health, balance, prosperity, abundance and success (Popescu, 2019d; Popescu, 2019e; Popescu, 2019f; Popescu, 2019g; Popescu, 2020a; Popescu, 2020b; Popescu, 2020c).
Sauer S. & Kohls N. (2011)	• In the work on "Mindfulness in leadership: Does being mindful enhance leaders' business success?" the authors define mindfulness as the ability of individuals to be opened, to be present and, in the same time, to be receptive to their surroundings, on a regular basis, without evaluating different situations in a cognitive manner (Sauer S. & Kohls N., 2011). • In addition, the authors' intention is to understand weather mindfulness represents "an omnipresent capacity that can significantly contribute to enhancing leadership performance", or signifies "a context dependent potential" (Sauer S. & Kohls N., 2011). • The authors argue that mindfulness is extremely valuable for leaders and executives in organizations and, also, "may enhance leadership as a general ability" due to its great capacity to raise awareness at work (Sauer S. & Kohls N., 2011).

Continued on following page

Table 3. Continued

Source	Relevant Details Acknowledged by Specialists in the Scientific Literature
Sawyer et al. (2021)	• The authors of the study on "Being present and thankful: A multi-study investigation of mindfulness, gratitude, and employee helping behavior" acknowledge the role played by gratitude in encouraging employees to help each other at their places of work, which leads to the importance of "cultivating employees' experiences of gratitude", in order to promote a healthy and mindful business environment (Sawyer et al., 2021). • In continuation, based on the study's findings, in today's modern organizations teamwork and collaboration among employees are considered highly important, while the positive emotions generated by general and most needed gratitude attitudes lead to "a serial mediation model in which state mindfulness, via positive affect and perspective taking" (Sawyer et al., 2021). • All in all, based on the authors' research discoveries, mindfulness at work associated with gratitude has the power to generate, in time, even "grater levels of gratitude, pro-social motivation", and, also an increased desire of employees to help each other at work (Sawyer et al., 2021).
Schultz et al. (2015)	• The authors of the study on "Mindfulness, work climate, and psychological need satisfaction in employee well-being" focus on the manner in which "both mindfulness and managerial autonomy support affect work adjustment" (Schultz et al., 2015). • The work centers on identifying individual differences in mindfulness, on the one hand, and on understanding the implications derived either from the autonomy-supportive or from the controlling style of individuals' management at their places of work (Schultz et al., 2015). • Additionally, of great interest for the authors was the assessment of specific "work-related adjustment" indicators, among which the research mentions the following ones: "burnout, turnover intention, and absenteeism" (Schultz et al., 2015). • The targeted research population is represented by two hundred and fifty-nine working adults that were recruited online, while the findings obtained by the authors were highly interesting, as follows: (1) "both autonomy support and mindfulness had direct relations with employee work well-being"; (2) individuals which declared a higher level of mindfulness were less likely to feel frustrated, even in those cases in which the managerial environment was unsupportive (Schultz et al., 2015). • In conclusion, the study shows that mindfulness "appears to act as a protective factor in controlling work environments", which means that the results presented in the study acknowledge "mindfulness as a potential pathway to wellness at the workplace", on the one hand, and acknowledge "the relevance of autonomy support in work environments" in fostering the employees "work well-being", on the other hand (Schultz et al., 2015).
Slutsky et al. (2019)	• The authors focus in their study on mindfulness and well-being entitled "Mindfulness training improves employee well-being: A randomized controlled trial", concentrating their attention on the effects that mindfulness training sessions have in terms of the effectiveness of employees, their general productivity and their well-being at the place of work (Slutsky et al., 2019).

Source: the author, based on the sources cited above

Thus, by addressing mindfulness, mindfulness in business, mental health, and well-being, there are several themes that occupy a central place in the EU, as pointed out in the lines below:

- Firstly, the most important issue of the "European pact for mental health and well-being" is represented by taking measures "to raise mental health awareness in the general public, among health professionals and other relevant sectors" (European Union (EU), 2008, p. 4).
- Second of all, another highly important issue is represented by promoting the importance of mental health and well-being by all means possible, thus being able to raise awareness among individuals and organizations (European Union (EU), 2008, p. 5).
- Third of all, while making reference to work and work environment, "policy makers, social partners and further stakeholders are invited to take action on mental health at the workplace" by tak-

ing into account three key steps: (a) the first step is illustrated by improving “work organization, organizational cultures and leadership practices to promote mental well-being at work, including the reconciliation of work and family life” (European Union (EU), 2008, p. 5); (b) the second step is portrayed by implementing “mental health and well-being programs with risk assessment and prevention programs for situations that can cause adverse effects on the mental health of workers (…) and early intervention schemes at workplaces” (European Union (EU), 2008, p. 5); and (c) the third step is embodied by taking serious “measures to support the recruitment, retention or rehabilitation and return to work of people with mental health problems or disorders” (European Union (EU), 2008, p. 5).

MINDFULNESS IN BUSINESS: DEFINITIONS, CHARACTERISTICS, IMPORTANCE, AND ROLE IN THE NEW ECONOMY AND COVID-19 PANDEMIC ERA

The section named “Mindfulness in business: definitions, characteristics, importance, and role in the New Economy and COVID-19 Pandemic Era”, belonging to the book chapter “Mindfulness business principles: producing outstanding value and encouraging community connections”, tackles the following key aspects, as follows:

- First of all, the subsection “What is mindfulness?” offers a response to the SRQ1 of this book chapter, thus providing several key definitions to the vital concept of “mindfulness”, analyzed at a general level.
- Second of all, the subsection “What does mindfulness in business represents?” offers a response to the SRQ2 of this book chapter, thus providing several key definitions to the vital concept of “mindfulness in business”.
- Third of all, the subsection “What are the characteristics, the importance and the role of mindfulness in business?” offers a response to the SRQ3 of this book chapter, thus presenting the characteristics, the importance and the role of mindfulness in business.

What Is Mindfulness?

The first subsection “What is mindfulness?”, part of the section named “Mindfulness in business: definitions, characteristics, importance, and role in the New Economy and COVID-19 Pandemic Era”, belonging to the book chapter “Mindfulness business principles: producing outstanding value and encouraging community connections”, offers a response to the SRQ1 of this book chapter, thus providing several key definitions to the vital concept of “mindfulness”, analyzed at a general level (see Table 4. Understanding the concept of “mindfulness”, analyzed at a general level).

Table 4. Understanding the concept of "mindfulness", analyzed at a general level

Source	What Is Mindfulness?
Martin (1997)	• Martin (1997) mentions mindfulness as "a state of psychological freedom that occurs when attention remains quiet and limber, without attachment to any particular point of view" (Martin, 1997, p. 291).
Bodhi (2000)	• Researchers state in their studies that mindfulness comes originally from the Pali word "sati", which implicates individuals' capacity to be aware, being attentive and remembering (Bodhi, 2000).
Germer et al. (2005)	• Germer et al. (2005) acknowledges mindfulness as being "moment-by-moment awareness" (Germer et al., 2005, p. 6).
Germer et al. (2005); Brown et al. (2007); Siegel (2007); Kostanski & Hassed (2008)	• Based on specialists' opinion, mindfulness represents a psychological state of awareness as well as a practice that promotes this type of psychological state of awareness (Germer et al., 2005; Brown et al., 2007; Siegel, 2007; Kostanski & Hassed, 2008).
Germer et al. (2005); Brown et al. (2007); Siegel (2007); Kostanski & Hassed (2008)	• Also, according to specialists mindfulness is seen as a trait specific to individuals' character, being associated with one of the multiple existing modes of processing information (Germer et al., 2005; Brown et al., 2007; Siegel, 2007; Kostanski & Hassed, 2008).

Source: the author, based on the sources cited above

What Does Mindfulness in Business Represents?

The second subsection "What does mindfulness in business represents?", part of the section named "Mindfulness in business: definitions, characteristics, importance, and role in the New Economy and COVID-19 Pandemic Era", belonging to the book chapter "Mindfulness business principles: producing outstanding value and encouraging community connections", offers a response to the SRQ2 of this book chapter, thus providing several key definitions to the vital concept of "mindfulness in business" (see Table 5. Understanding the concept of "mindfulness in business").

What Are the Characteristics, the Importance and the Role of Mindfulness in Business?

The third subsection "What are the characteristics, the importance and the role of mindfulness in business?", part of the section named "Mindfulness in business: definitions, characteristics, importance, and role in the New Economy and COVID-19 Pandemic Era", belonging to the book chapter "Mindfulness business principles: producing outstanding value and encouraging community connections", offers a response to the SRQ3 of this book chapter, thus presenting the characteristics, the importance and the role of mindfulness in business (see Table 6. Addressing the characteristics, importance and role of mindfulness in business).

Table 5. Understanding the concept of "mindfulness in business"

Source	What Is Mindfulness in Business?
Harris (2014)	• The book "10% Happier: How I Tamed the Voice in My Head, Reduced Stress Without Losing My Edge, and Found Self-Help That Actually Works – A True Story" – that occupied the first place in New York Times Bestsellers list and the winner of the 2014 "Living Now Book Award for Inspirational Memoir", highlights the importance of meditation – as ancient practice, and emphasizes the role of mindfulness in an over-competitive world, where day-to-day multitasking and increased levels of stress have turned human beings into profoundly anxious individuals forced to leave their lives in unhealthy environments (Harris, 2014).
	• Harris (2014) advocates the power of mindfulness and meditation practices as sources of well-being, bliss, happiness and enlightenment for a better and richer life.
Gelles (2016a)	• In the article "How to Be More Mindful at Work", published in the journal "The New York Times", Gelles (2016a) points out the fact that even though the jobs that people have enable them to pay their bills, occupy many of individuals' waking hours and, in some cases, may even offer meaning to people's lives, these jobs might even be a tremendous source of stress, anxiety, and frustration.
	• Under these given circumstances, Gelles (2016a) mentions that mindfulness can be of help, being able to significantly diminish the stress level of our bodies and help individuals cope in a better way with the arising "anxiety-provoking" issues.
	• In this matter, Gelles (2016a) offers several examples of companies, among which could be mentioned, for instance, Google and General Mills, that started to teach mindfulness at work in the recent years, based on specialists' findings according to which mindfulness in business has the power "to reduce the impact workplace stress", and help both the mind and the body.
	• According to Gelles (2016a) article on "How to Be More Mindful at Work", mindfulness means focusing "to the present moment", without judging, without analyzing, by simply acknowledging and accepting the situations encountered at work in the attempt to reduce any work-related forms of stress.
	• Moreover, Gelles (2016a) recommends meditation as a vital instrument that human beings possess and which helps them train their minds to be more anchored in the present, rather than in the past or in the future. In this case, Gelles (2016a) emphasizes that individuals are expected to display less stress, be much calmer, and much kinder with their own person and with people around them.
Gelles (2016b)	• The book "Mindful Work: How Meditation Is Changing Business from the Inside Out" authored by Gelles (2016b) – representing a guide on how to become more mindful at work, in the daily lives, argues that mindfulness implicates becoming more focused on current tasks, and avoid multitasking which enables individuals to finish successfully the work that needs to be done.
	• In addition, the book "Mindful Work: How Meditation Is Changing Business from the Inside Out" illustrates the importance of mindfulness at work by helping individuals cope better with their emotions, helping them think clear and avoid any disruptive behavior, such as, for instance: daydreaming, making different assumptions, or inventing stories (Gelles, 2016b).
	• Nevertheless, it should be noted that, according to Gelles (2016b), mindfulness should not be associated with the process of emptying the mind or stopping thoughts.
	• Gelles (2016b) sees mindfulness as a practice that requires the development of inner self, creating a state of tranquility, paying attention to physical sensations and responding to physical sensations.
Burns, S. (2019)	• The Forbes article on "Can Mindfulness Help You Run Your Business?" written by Burns (2019) tackles mindfulness in business in strong connection with mental health and wellness in organizations.
	• The article offers numerous examples of successful corporations on the marketplace, such as, Spotify, Google, and Goldman Sachs, which provide already for several years different mindfulness training programs and sessions for their employees, being convinced by the findings on the benefits of meditation in people's daily lives (Burns, 2019). In continuation, it should be noted that, for instance, Google provides to the employees' mindfulness trainings called "Search Inside Yourself" (Burns, 2019).
	• According to the elements discussed in the article on "Can Mindfulness Help You Run Your Business?", Burns (2019) refers to numerous benefits derived from the use of mindfulness at work, among which could be addressed the following ones: helping individuals to better run their activities and their businesses; increasing the level of performance and of productivity; significantly reducing anxiety and stress; contributing to a better sense of presence and diminishing the need to go in the past or dream about the future.

Source: the author, based on the sources cited above

Table 6. Addressing the characteristics, importance and role of mindfulness in business

Source	What Are the Characteristics, the Importance and the Role of Mindfulness in Business?
Martin (1997)	• Specialist Martin (1997) considers mindfulness as common factor in psychotherapy.
Young (1997)	• In the study on "The science of enlightenment", Young (1997) mentions that mindfulness has the power to improve individuals' mental clarity and enhance their concentration.
Wallace (2001); Fulton (2005)	• In the works of Wallace, B.A. (2001) and Fulton, P.R. (2005), among the benefits of mindfulness are mentioned the following elements: acceptance, compassion, kindness, and ability to relate with other people.
Bishop et al. (2004); Masicampo & Baumeister (2007)	• Researchers Bishop et al. (2004) and Masicampo & Baumeister (2007) refer to mindfulness as enabling individuals to be more in control, naming self-control as a benefit of mindfulness.
Adele & Feldman (2004)	• Scholars Adele & Feldman (2004) associate mindfulness with individuals' enhanced flexibility.
Fulton, P.R. (2005)	• Fulton (2005) stresses tolerance as the benefit of mindfulness.
Adele & Feldman (2004); Shapiro et al. (2006); Brown et al. (2007); Leary & Tate (2007)	• Adele & Feldman (2004), Shapiro et al. (2006), Brown et al. (2007), and Leary & Tate (2007) associate mindfulness with objectivity.
Morgan (2005); Morgan & Morgan (2005)	• In the studies of Morgan (2005) and Morgan & Morgan (2005), mindfulness is associated with equanimity.
Walsh & Shapiro (2006)	• Walsh & Shapiro (2006) illustrates the fact that emotional intelligence is one of the benefits of mindfulness.
Corcoran et al. (2010); Farb et al. (2007); Farb et al. (2010); Siegel (2007); Ramel et al. (2004); Chambers et al. (2008); McKim (2008); Chambers et al. (2009)	Specialists such as Corcoran et al. (2010), Farb et al. (2007), Farb et al. (2010), and Siegel (2007), emphasized in their studies the fact that mindfulness leads to emotional regulation in the brain, thus contributing to effective emotional regulation (Ramel et al., 2004; Chambers et al., 2008; McKim, 2008; Chambers et al., 2009).
Shapiro et al. (2006); Didonna, F. (Ed.) (2009a); Didonna, F. (2009b); Shapiro & Carlson (2009)	• The concepts of mindfulness, in general, and mindfulness in business, in particular, have an increased popularity as displayed by numerous articles and studies published both in the popular press and in the psychotherapy specialty literature.
Shapiro et al. (2006); Didonna, F. (Ed.) (2009a); Didonna, F. (2009b); Shapiro & Carlson (2009)	• These days, mindfulness is an integrating part of behavior therapy, being acknowledged by specialists as a mainstream psychotherapy construct, having numerous benefits in individuals' day-to-day lives.
Shapiro & Carlson (2009)	• Mindfulness meditation helps individuals maintain self-control and self-care, thus being able to help combatting the burn-out rates.

Source: the author, based on the sources cited above

MINDFULNESS IN BUSINESS: BENEFITS, CHANGES AND CHALLENGES IN THE NEW ECONOMY AND COVID-19 PANDEMIC ERA

This book chapter entitled "Mindfulness business principles: producing outstanding value and encouraging community connections" contains a fourth section entitled "Mindfulness in business: benefits, changes and challenges in the new economy and COVID-19 pandemic era", which places "Mindfulness in business and the power of producing outstanding value", "Mindfulness in business and the art of encouraging community connections" and "What are the most valuable mindfulness business principles?" as major points and major parts of its analysis.

Mindfulness in Business and the Power of Producing Outstanding Value

The first subsection on "Mindfulness in business and the power of producing outstanding value" places in the center of attention mindfulness and mindfulness' undeniable power of producing outstanding value both while referring to entrepreneurship and entrepreneurial activities, and to mental health and well-being (see Figure 5. Mindfulness in business and the power of producing outstanding value for entrepreneurship and Figure 6. Mindfulness in business and the power of producing outstanding value in an era profoundly preoccupied by mental health and well-being).

Figure 5. Mindfulness in business and the power of producing outstanding value for entrepreneurship
Source: the author, based on the sources cited in this book chapter

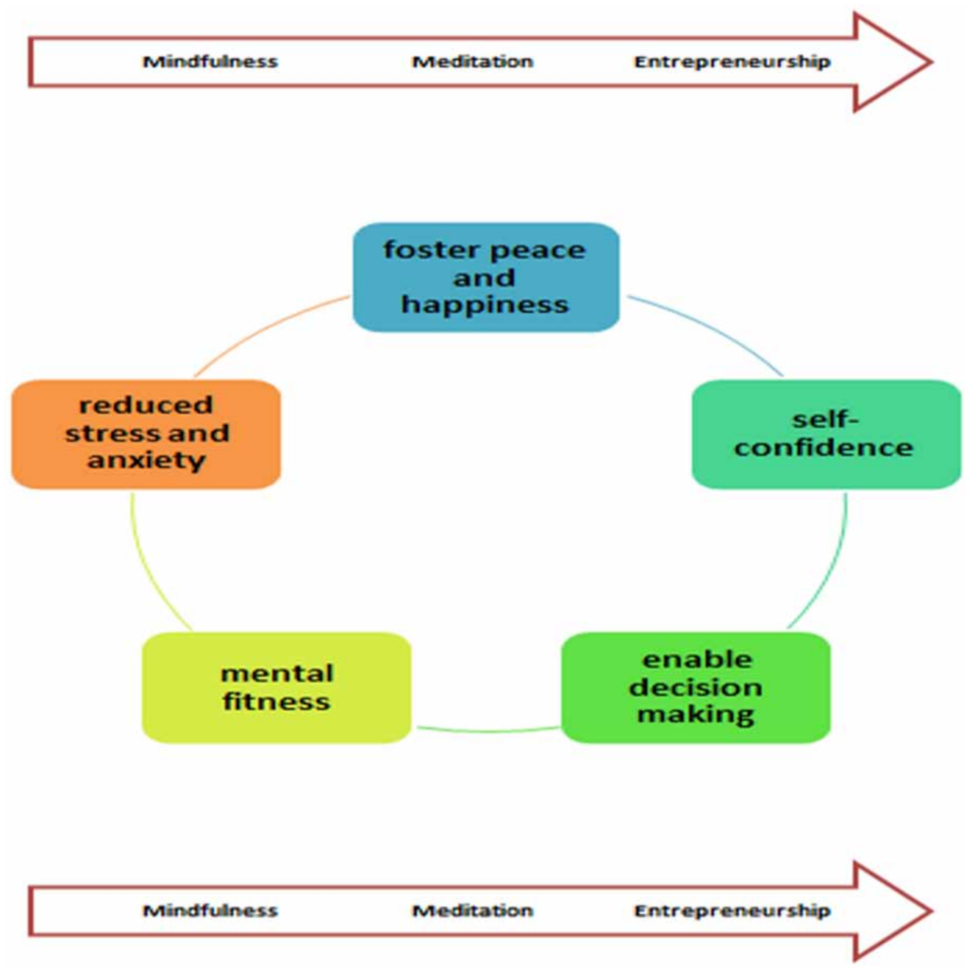
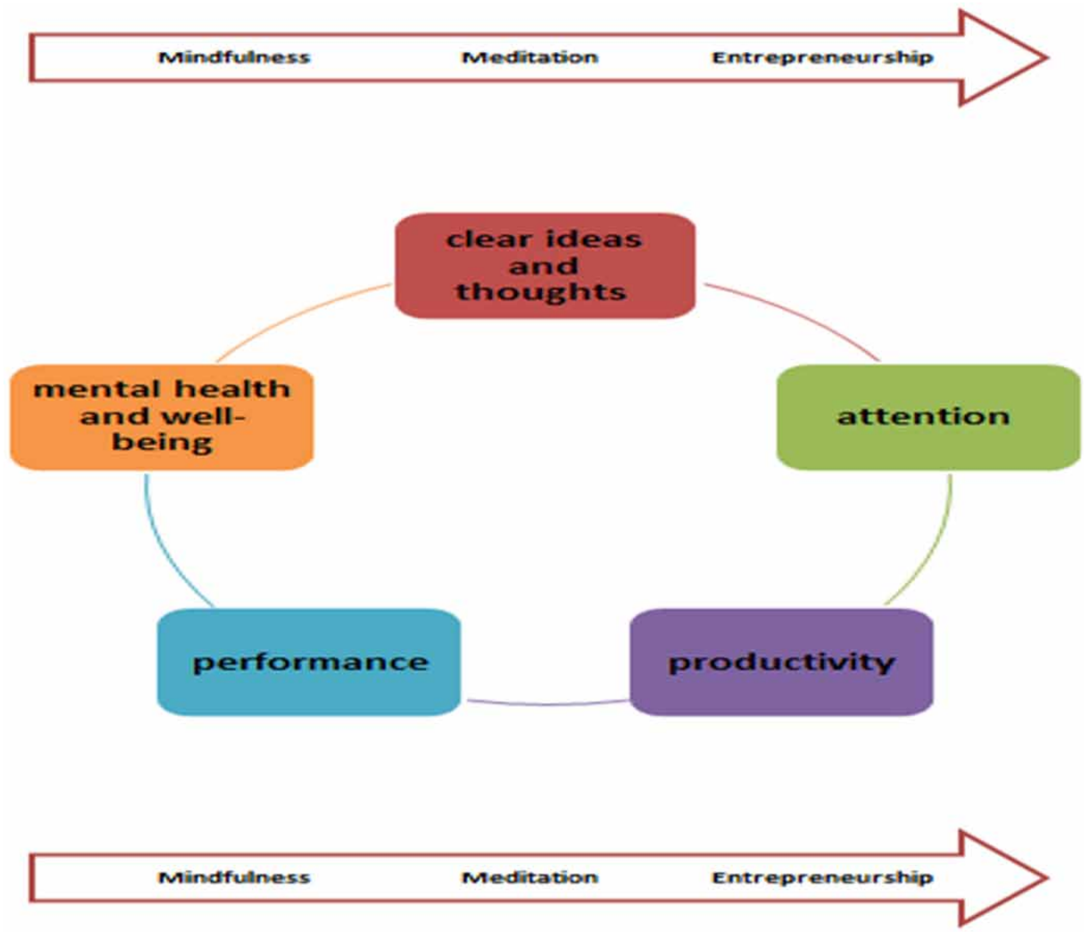


Figure 6. Mindfulness in business and the power of producing outstanding value in an era profoundly preoccupied by mental health and well-being
Source: the author, based on the sources cited in this book chapter

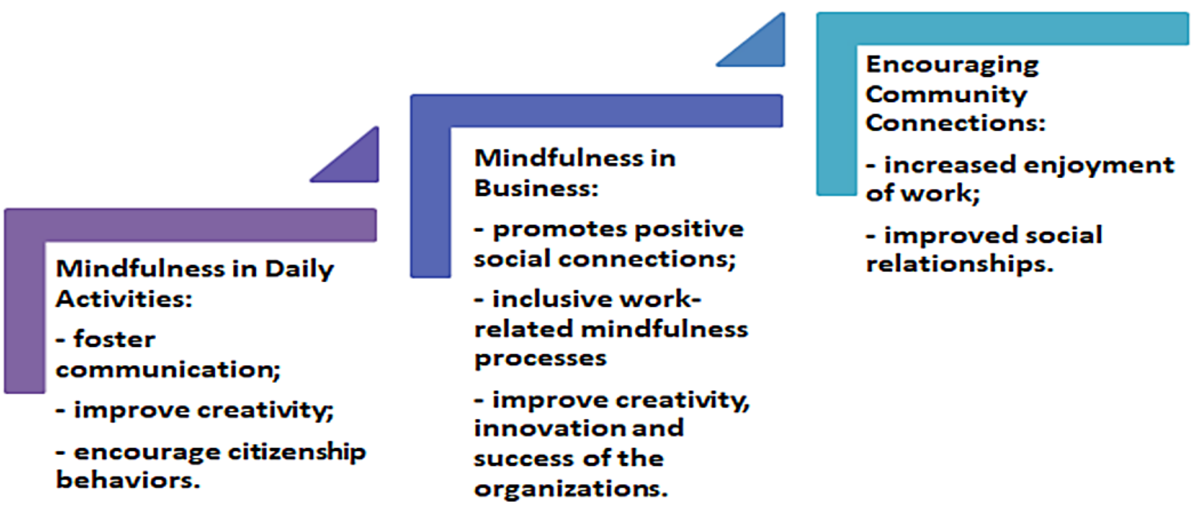


Mindfulness in Business and the Art of Encouraging Community Connections

The second subsection on "Mindfulness in business and the art of encouraging community connections" places in the center of attention mindfulness in business and the art of encouraging community connections (see Figure 7. Mindfulness in business and the art of encouraging task and work commitment and Figure 8. Mindfulness in business and the art of encouraging community connection).

Figure 7. Mindfulness in business and the art of encouraging task and work commitment
Source: the author, based on the sources cited in this book chapter

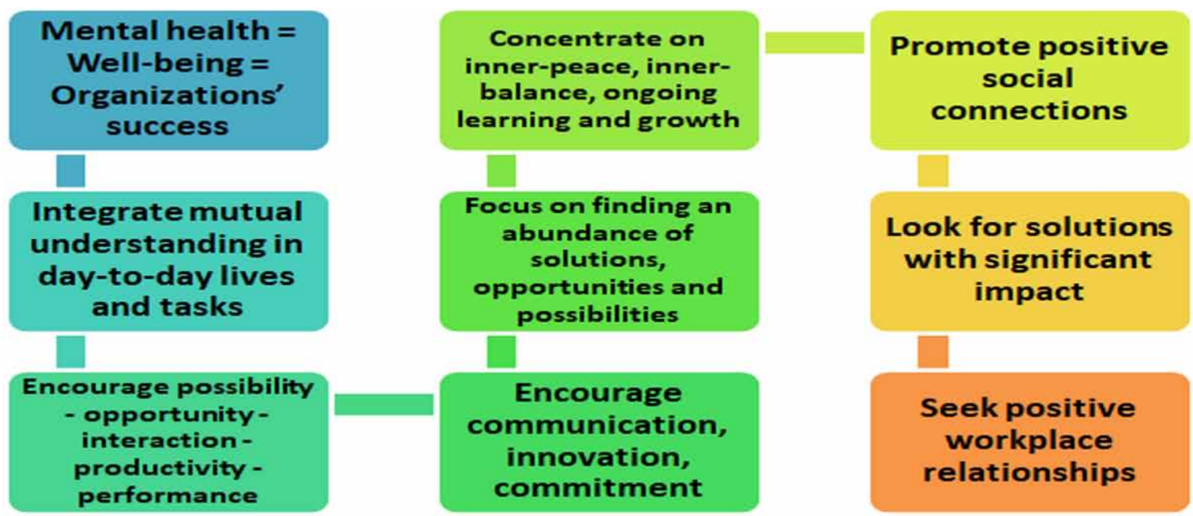
Figure 8. Mindfulness in business and the art of encouraging community connection
Source: the author, based on the sources cited in this book chapter



What Are the Most Valuable Mindfulness Business Principles?

The third subsection on "What are the most valuable mindfulness business principles?" focuses on the need of establishing valuable mindfulness business principles capable to encourage individuals to be more active and more committed to their daily tasks and their workplace, concentrating on their mental health and well-being as well as the organizations' success. In the lines below, there are a few mindfulness business principles that might be considered as vital for all organizations (see Figure 9. Mindfulness business principles).

Figure 9. Mindfulness business principles
Source: the author, based on the sources cited in this book chapter



DISCUSSION AND SYNTHESIS OF RESULTS

This section represented by the "Discussion and synthesis of results" highlights the key findings encountered in the book chapter entitled "Mindfulness business principles: producing outstanding value and encouraging community connections", showing the importance of mindfulness in people's daily lives and in their workplace.

In this matter, there are several aspects that require attention when it comes to presenting the main results of this book chapter:

- First of all, the book chapter entitled "Mindfulness business principles: producing outstanding value and encouraging community connections" brings into discussion these days business environment and the imminent challenges and changes that occurred worldwide due to the Covid-19 pandemic and the Covid-19 crisis. In this matter, the chapter brings numerous arguments capable to suggest the need for taking immediate measures capable to significantly diminish and gradually decrease the effects of the Covid-19 pandemic and the Covid-19 crisis for individuals and businesses.
- Second of all, this book chapter highlights the strong bond that exists between individuals' mental health and well-being, and entities success and visibility on the marketplace. In this matter, the book chapter brings a series of arguments capable to determine people to become more focus on their inner-balance and inner-pace, in order to be more productive and more committed to work and business, thus learning to communicate better and perform better in the community. Nevertheless, the work environment is extremely stressful and particularly competitive, so multi-

tasking has proven to be, in most cases, one of the reasons for which employees are less inclined to be able to prioritize their activities, less able to focus and even in the position to attract negative thoughts and reactions, leading even to affected health, burnout and high-levels of anxiety and of stress.

- Third of all, this book chapter illustrates the implications of mindfulness on individuals, with reference to the benefits, the role and the importance of mindfulness for people, businesses, entrepreneurship, community and society.
- Fourth of all, there are several mindfulness business principles, which this book chapter proposes as future reference and future analysis, as follows: (1) Mental health = Well-being = Organizations' success; (2) Integrate mutual understanding in day-to-day lives and tasks; (3) Encourage possibility - opportunity - interaction - productivity - performance; (4) Concentrate on inner-peace, inner-balance, ongoing learning and growth; (5) Focus on finding an abundance of solutions, opportunities and possibilities; (6) Encourage communication, innovation, commitment; (7) Promote positive social connections; (8) Look for solutions with significant impact; and (9) Seek positive workplace relationships. However, it should be mentioned that these mindfulness business principles could also be mindfulness principles, in general, since they are successfully able to accommodate individuals' needs in any situation.

SOLUTIONS AND RECOMMENDATIONS

This section represented by the "Solutions and recommendations" brings to light the key solutions and recommendations that should be taken into account when analyzing mindfulness, in general, and mindfulness in business and mindfulness business principles, in particular, while centering on discovering solutions capable to produce outstanding value and encourage long-term community connections.

The solutions and recommendations proposed by the author based on the findings of this book chapter and the literature review on mindfulness and mindfulness in business are, as follows (see Figure 10. Solutions and recommendations for supporting mindfulness business principles):

Step 1: Mindfulness enables social relationships and facilities workplace connections, since mindfulness in business relies on individuals' empathy, employees' response flexibility, and their desire to discover new opportunities in the business environment.

Step 2: Mindfulness offers people viable solutions to be more aware of their need to maintain their precious sanity, their vital mental health, reaching a state of well-being, balance and inner-peace, which will be of help to businesses, entrepreneurial activities, and daily work-place activities.

Step 3: Mindfulness implicates finding new solutions and being less judgmental, less critical and less inclined to make decisions based on preconceptions, past experiences, and present expectations for an unreal future.

Step 4: Mindfulness in business calls for understanding that only some of the possible solutions out of the multitude of the existing solutions depend on individuals' power of decision, the rest of these solutions becoming visible in less stressful conditions, when people have the possibility to think better, more rationally, without so much anxiety and frustration, or even ill-feelings involved.

Figure 10. Solutions and recommendations for supporting mindfulness business principles
Source: the author, based on the sources cited in this book chapter

FUTURE RESEARCH DIRECTIONS

This section represented by "Future research directions" concentrates on emphasizing some new research directions that might be taken into consideration in the near future, and that might help understand better the relationship that exists between mindfulness, mindfulness in business, leadership, entrepreneurship and the business environment.

In this regard, there are several aspects that could be mentioned here:

- First of all, one research direction could be represented by analyzing and by presenting the need to foster mindfulness at work as an investment for entities, leaders and managers, since centering on ensuring individuals' well-being in the work-place might be a key solution innovation and creativity.
- Second of all, another research direction could be represented by presenting the importance and the role of mindfulness movement in organizations, based on entities' efforts to raise competitive advantages, face competition, increase productivity, boost performance and center on individuals' well-being, joy and awareness for the present moment.

CONCLUSION

All in all, the book chapter entitled "Mindfulness business principles: producing outstanding value and encouraging community connections" presents vital and up-to-date aspects related to mindfulness, mindfulness in business, well-being, mental health, and healthy principles for ensuring a healthy life and work environment.

In this matter, there are several pivotal issues discussed in this book chapter, as follows:

- First of all, the book chapter displays dominant concerns specific to the current business environment, centering its attention on the Covid-19 pandemic and the Covid-19 crisis that have transformed our lives and our working places in a dramatic way. In continuation, there are several challenges that the Covid-19 pandemic and the Covid-19 crisis brought to the attention and which are illustrated in this book chapter. Thus, the world economy strives to regain its balance and seeks new perspectives and new solutions especially in the new context shaped by the potential benefits of the new global economy, the knowledge-based society, the long-life-learning programs and sessions, and the learning organizations expected potential.
- Second of all, the Covid-19 pandemic and the Covid-19 crisis managed to show, once again in the turbulent history of mankind, the fragility that characterize all human beings, the environment, the ecosystems, and the business relationships. Thus, mindfulness, in general, and mindfulness in business, in particular, are closely analyzed in relation with well-being and mental health, point out that facing both present and future challenges, changes, and obstacles, requires strength, determination, will, the desire to succeed and the power to adapt.

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KEY TERMS AND DEFINITIONS

European Pact for Mental Health and Well-Being: Represents a pivotal document that is part of the European Union (EU) agenda, and that was published in 2008, in the attempt to raise awareness to the importance of individuals' mental health and people's necessity to concentrate on well-being, joy, happiness, inner-balance and inner-self; high levels of stress and anxiety show that the environment is not healthy for individuals, while well-being and a balanced life and life style are responsible for a prosperous and blissful life.

Knowledge-Based Society and Economy: Intangible assets are probably one of the most important assets that organizations might possess these days, and the knowledge-based society and economy are the ones that rely on the tremendous potential that knowledge, intellectual capital, know-how, human resources, and other valuable intangible assets have brought into the daily lives and daily activities.

Mindfulness: Represents a valuable characteristic that individuals possess and that refers to people' capacity to be anchored in the present moment, rather than be connected to past experiences or dream about future possibilities, thus helping individuals to be more aware of the real needs that they might have in order to find the optimal solutions to their problems; in continuation, people are able to learn how to become more committed, how to respond better to their colleagues needs, how to avoid stress and anxiety, and, in return, feel more joyful, more balanced, more happy.

Sustainable Development: Represents a dominant target on the agenda of all countries worldwide, especially since recent statistics call for immediate measures capable to support healthier lives, more responsible activities, more balanced business actions, and more reliable and robust policies; human beings are profoundly preoccupied to find optimum solutions capable to help them improve their lives and living standards, but, in the same time, answer to the needs of the future generations – with an accent on biodiversity, ecosystems, good governance, corporate social responsibility, and business awareness.

Well-Being: Is a top priority on the European Union (EU) agenda, as shown by the 2008 "European Pact for Mental Health and Well-Being", since, based on recent statistics, individuals have come to confront themselves with more and more problems year by year, displaying different worrying reactions to stress and increased levels of work-load; ensuring well-being and fostering mental health in today's environment is crucial, especially when facing new and more abrupt changes generated by the Covid-19 pandemic and the Covid-19 crisis.

Chapter 11
Organizational Resilience Capability and Capacity Building

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ABSTRACT

The objective of this chapter is to analyze the implications of organizational resilience capability and capacity building and development processes and the posed challenges to its design and implementation. It is based on the conceptual and theoretical assumptions underpinning the capabilities of resilience that can be learned and designed by organizations to be implemented and applied to adverse conditions. These underlying assumptions affect the organizational resilience capabilities building. It is concluded that building and developing organizational resilience capabilities has increased the research agenda on the theoretical and conceptual literature and the notions, factors, elements, and challenges.

INTRODUCTION

Organizations are subject to complex, uncertain, ever changing, and diverse environment which require to develop resilience capabilities to manage and recover from disruptions. Resilience remains a problem in practice as the organizational capability to alleviate the effects of disruptions and to bounce back from a crisis (Hamel and Välikangas 2003; Salwan and Gada 2018).

Many organizational threats require different types of resilience of the system by making decisions on the best resilience way to approach the operational environment depending on the mission characteristics. To achieve this requires balancing all the specific elements of organizational resilience such as the objective, the mission capability, and the operational environment to avoid, mitigate and recover from the impact. Resilience capabilities avoid and limit the impacts of adverse events (Sheffi and Rice 2005; Jüttner and Maklan 2011).

Unfortunately, the organization science has developed a lot of inadequate conceptual assumptions and frameworks that fail to contribute to find solutions. Organizational resilience can be studied as a capacity and capability-based concept (Duchek, 2020; Williams *et al*. 2017). This processual perspective

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concerns the phases of crises as an integral model of organizational resilience that acknowledges the inherent uncertainty (Williams et al., 2017). Organizational resilience is being studied by the resilience capabilities and processual approaches. At the organizational level, organizational resilience derives from a set of organizational capabilities, processes, practices, routines orienting the organization and acting forward to create a setting of diversity and adjustable integration (Lengnick-Hall *et al*. 2011, p. 246).

Organizational resilience may be considered the ability, capability, and property which can be improved over time despite the difficulties to find the right elements that may contribute to handle disruptive events. Organizational resilience is a desirable property, an ability, capacity, and capability to deal with changes, jolts, and risks. Some characteristics of organizational resilience are the potential capability and capacity under emergent, disruptive, and discontinuous internal and external environment not always perceived in operational activities. Some characteristics of organizational resilience are the development of potential capabilities that take advantage under emergent and discontinuous, emergent, and disruptive environment. The essence of organizational resilience capabilities is the dealing with change, risks, and environmental jolts.

Organizational resilience behaviors are explained by the resilience capabilities, practices, and routines to cope with unexpected threats and events. Behavioral resilience enables the organization to learn about the situation, use resources and capabilities in collaborative actions.

CONCEPTUALIZATION

The conceptualization of organizational resilience considers capabilities, awareness, perceptions, planning, etc. (De Florio, 2013). There is little consensus about the meaning of organizational resilience, what are its elements, what are the organizational capabilities and conditions needed and how they are composed. The conceptualization of organizational capabilities to develop resilience are required despite the existing inconsistencies in the literature. The organizational resilience literature is based on turnaround the resources and capabilities advancing from different disciplines such as psychology, ecology, engineering, and organization science, etc., for building new theory.

Resilience is conceptualized as a meta-capability formed by a set of organizational capabilities and routines. The organizational capabilities and meta-capability that underlie resilience are complex, embedded, and dependent on social context factors. Resilience capabilities become effective when leveraged on complexity (Birkie et al. 2017).

The integral and capability-based resilience model provides a frame of reference structure to ongoing debate. The capability-based perspective contributes to organizational resilience capabilities for the organization for survival and prosperity despite the adversity and turbulence. Resilience based on the perspective of capabilities that become effective in situations of complexity of risks contributes with applying stability while addressing the disruptions through incorporating non-linearity quantum thinking replacing the Newtonian thinking (Pellissier 2011, 2012). Organizational resilience capability building is context-dependent on the specific exposure to desirable characteristic dealing with unexpected, abrupt, and extreme change (Linnenluecke and Griffiths 2012).

The conceptual development of organizational resilience remains underdeveloped based on assumptions about the nature of capabilities (Limnios et al., 2014), which can incorporate other dimensions used in disciplines that have adopted the resilience construct as it applies within each domain in psychology, engineering, ecology, management sciences, etc., with an intention to further developing organizational applicability. The conceptual analysis of the organizational resilience construct is a cognitive frame on development of resilience capabilities.

Assumptions of an integrated model supported by managerial cognitions lead to organizational resilience capability building of a specific type of resilience to apply actions, as the heuristics-based capability model. An integrative resilience framework for uncertain environments is the capability for turning adverse conditions into organizational opportunities, bouncing back in an agile deportment without being stuck by an unexpected event (Kantur and İşeri-Say, 2012)

Resilience is the ability and the capability of any system to return and recover to a stable state after displacement (Bhamra, Dani, & Burnard, 2011; Norris et al., 2008). Organizational resilience is determined by the capabilities designed to cope with environmental shifts (Lengnick-Hall & Beck, 2009). Resilience is the system´s capability to maintain its structure and function in the face of internal and external changes and to degrade when it must (Weick & Sutcliffe, 2007: 69). Organizational resilience is the function of specific capabilities and abilities (Erol *et al.,* 2009; Gunasekaran, Rai, Griffin, 2011; McManus, Seville, Vargo, Brunsdon, 2008).

The concept of resilience based on integral, and capabilities support the conceptual and empirical studies for the recovery of organizational activities and the capacity to operate (van der Vegt et al., 2015). Most of the studies have been conducted on qualitative research (Bansal & Corley, 2011; Eisenhardt & Graebner, 2007; Gephart, 2004). The empirical evidence of organizational resilience is more than restoration to include the building of new capabilities to expand abilities to keep pace and create opportunities (Lengnick-Hall et al., 2011).

Organizational resilience is the capability to alleviate and bounce back adverse effects of disruptions and from crisis situations (Salwan and Gada, 2018). Organizational resilience is the actor´s process by which builds and uses its capability endowments to interact with the environment adjusting and maintaining the functioning prior to, during and following adversity (Williams *et al*. 2017). Organizational resilience is an emergent property to lean to adjust and strengthen its capability to overcome adversity and future challenges (Teo *et al*. 2017).

Organizational resilience is a latent attribute characterized by a set of capabilities that are path-dependent and developed by organizations coping unexpected events (Ortiz-de-Mandojana and Bansal, 2016). Resilience is an ability and capability for the organizations, which may be desirable depending on the state of the organization and system (Mamouni Limnios, 2011; Mamouni Limnios *et al.,* 2014). Resilience is a characteristic of an organization development of resources and capabilities.

A resilience capability means having both ability and capacity for resilience that need to be transformed into action (Richtnér and Löfsten, 2014, p. 138) becoming an organizational resilience capability. A systemic organizational resilience refers to a proactively mitigating risks in different contexts balancing mitigation and reactive capabilities (Marchese and O'Dwyer, 2014; Sáenz and Revilla, 2014; Deloitte Development LLC, 2013; Sheffi, 2005). Organizational resilience is the ability and capability to accommodate and absorb change without shocks, without catastrophic failure and gracefully (Boin and van Eten, 2013). Organizational resilience is the capability to maintain operations under the spectrum of potential breakdowns (Aleksić et al. 2013)

Organizational resilience is a capability for turning adverse conditions into an opportunity, a positive attitude of bouncing back, agile deportment an unexpected and disruptive event in an inertia stage (Kantur and Iseri-Say 2012). Organizational resilience is the capability for turning adverse conditions into the organizational opportunity, the positive attitude of bouncing back and relative agile deportment brought by an expected and disruptive event or a series of them without being stuck too long in the stagnation and inertia stage.

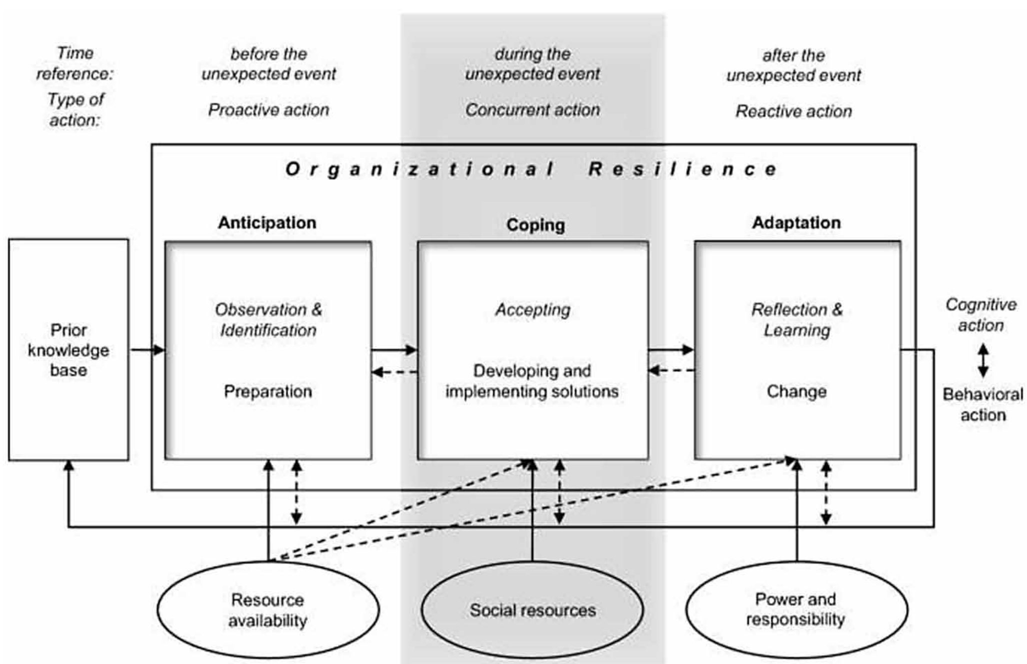
Organizational resilience is the set of specific organizational capabilities, routines, practices, and processes to conceptually orient itself, act to move forward and create a setting of diversity and adjustable integration (Lengnick-Hall *et al*. 2011). Organizational resilience is the capability to maintain operations under a wide spectrum of potential breakdowns (Antunes, 2011). Organizational resilience is the capability to meet current market demands that consider alternative options for growth to capitalize upon anticipated trend in the Marketplace (Ismail *et al*. 2011). Organizational resilience is the capability to anticipate periods of chaos and crisis by reacting to disruptions and shocks to achieve adjustments.

Organizational resilience is an ability of a system to meet operating, maintaining, and recovering critical capabilities under pressures, tensions and stressors of disasters and unexpected events. Specific resilience is the capability to maintain functions during and after specific threat or unexpected event. Organizational resilience is the emergent capability to investigate, learn, act, and improve and those overall capabilities without knowing in advance what one will be called to act upon (Wildavsky, 1988).

The integral capability-based organizational resilience expands the theoretical concept leads to cope with crises and to enact practices and their interplay occurring during, before and after the crises. This integration is not considering the recovery of the crises and disasters conceptualized as bouncing back to achieve a new normal. This temporal differentiation of crisis is the bases to develop an integral capability-based organizational resilience that allows to plan the resistance and the containing crisis approach. This approach is being regarded as the conceptual umbrella to cover all the capabilities associated to the different phases of crisis (Masten & Obradović, 2007: 14).

The capability-based theory of organizational resilience is supported by Duchek, (2014); Parker and Ameen, 2018; Williams *et al*. 2017). A capability-based conceptualization of organizational resilience is done by Lengnick-Hall, Beck, & Lengnick-Hall (2011), as shown in figure 1.

Figure 1.



The organizational context of resilience is relevant for the anticipation in coping with unexpected events by the understanding of the environment and acceptance of reality of existing problems (Coutu 2002; Catalan and Robert, 2011). The anticipation stage in the resilience process comprises important and specific capabilities such as the abilities to analyze internal and external organizational developments, to identify potential threats and critical developments and, and to prepare for unexpected and unknown events (Kendra and Wachtendorf, 2003; Somers, 2009; Burnard and Bhamra, 2011).

Organizational resilience accepts the overlapping elements of anticipation capabilities by understanding the environment and the reference of its operational system and the awareness of accepting failures (Catalan and Robert, 2011). Resilience capabilities inherent to the system are the homeostasis, morphostasis and morphogenesis (Chan 2011). The resilience potential is defined as the one not presently evident and realized built by the anticipation capabilities (Somers, 2009, p. 13) as the foundations to respond to critical situations and provide control and undertake actions, decisions and adjustments (Schulman, 2004, p. 43) and coping capabilities.

The organizational development of resilience capabilities potential, not evident and realized, needs the anticipation capabilities, although they are not sufficient. The organizational resilience evolves from one level to another based on the improvement of capabilities to deal with shocks and disturbances and survive to environmental changes. High levels of resilience needs the development require to focus on several resilience stages and capabilities forming the meta-capabilities mixing anticipation and coping capabilities (Somers, 2009).

Organizations strengthen resilience as the ability to recover basic and critical capabilities from threat events and natural disasters to facilitate recovery efforts, prevent system collapse and reduce economic impacts (Bernstein, Bienstock, Hay, Uzunoglu, Zussman, 2004). Resilience is the set of attitudes and development of new capabilities of organizational representatives about desirable actions (Kendra and Wachtendorf 2003).

The most recognized categorizations of the concept of organizational resilience are the resilience as an outcome, as a process and resilience capabilities. The conceptualization of resilience as an outcome considers that organizations performs well during periods of crisis and bounce back due to different factors (Horne and Orr 1998) or attributes that are adequate resources (Kendra and Wachtendorf, 2003; Gittell et al. 2006; Vaelikangas and Romme, 2013) such as positive relationships (Gittell et al. 2006) or redundancy (Kendra and Wachtendorf 2003). Self-awareness is an attribute of organizational resilience that requires the ability to understand real time activities and capabilities, mindset, and tools to monitor the environmental vulnerabilities, and risks across the organization and in its value chain.

LITERATURE REVIEW ON CAPACITY BUILDING

Capacity building is a component considered to enhance the employees' performance. However, the research on capacity building theoretical foundations, models and frameworks is very limited leading to improve better organizational practices. It is considered that capacity building correlates with development and enhancement of knowledge and skills of human resources. However, the concept of capacity building is more relevant for economic development projects and strategies than technology transfer system where natural resources are becoming more scarce and technological methods of work are changing (Enemark & Ahene, 2002; WRI, 2008).

Capacity building is the human resource development, intra- and inter-organizational strengthening, and institutional reform (Brown, 2007, p.222). Capacity building is regarded as the practice of developing and establishing skills, attitude, nature, capabilities, ability, procedures, and resources required to adapt and increase individual performance, enhance, and encourage working persons, assets development organizational proficiency, showing significant enhancements in performances, development (Fullan, 2001). Capacity building impacts the individual performance influenced by the psychological, sociological, economic, educational, physical, and probability factors, increasing the probability of development over the lifespan (McDaniels & Gysbers, 1992; Otoo & Mishra, 2018).

Capacity building is a component in developing more effective human capital (Tzafrir 2005). Capacity building program is a continuous process that involves intellectual capital, social capital, and organizational capital aimed to employees' and firm´s performance and create and accumulate value. Organizational capacity building process and activities are continuous, requiring active feedback and occurring among all the involved at the top management and stakeholders (Park et al., 2011). Capacity building refers to development of knowledge, attitude, and skills for enhancing the work abilities to achieve the individual levels and organizational goals (Sastre Merino and Ríos Carmenado, 2012; Groot & van der Molen, 2000; Millar & Doherty, 2016). Capacity building covers the inabilities of individuals at work and develops the required skills and attitude to enable them to accomplish the tasks efficiently (Yamoah & Maiyo, 2013).

Capacity building means the activities of training, human resource development and organizational and institutional development (UNESCO, 2010). Training programs aimed to capacity building programs are relevant for human resources development (Asfaw, Argaw, and Bayissa, 2015; and Guest 1997). Training programs include capacity building for development of employees for enhancing their knowledge and skills aimed to improve task efficiency and performance. The capacity building through training programs increases the knowledge, attitudes, skills, and abilities of the employees.

Manager support in financing capacity building affect employee effectiveness and business performance. Capacity building provides sustainable opportunities and socioeconomic benefits for the individuals in local business and industries by developing and using their natural talents (Hu, Rao, & Sun, 2006). Capacity building has an impact on improving performance at individual level and effectiveness at organizational level (Ahmad, Farrukh, & Nazir, 2015). However, Wassem, Ahmad Baig, Abrar, Hashim, Zia-Ur-Rehman, Awan, Amjad, and Nawab (2019) found that capacity building has a positive impact of managerial support and capacity building on employee performance moderated by employee retention and has a significant positive impact while in contrast managerial support has an insignificant impact on employee performance.

Employee retention has a positive effect of capacity building and manager support on employee performance. Capacity building has a significant impact on employee retention and performance (Fletcher, Alfes, and Robinson, 2018). organizational management is compelled to design and implement retention policies and strategies aimed to enhance internal customer retention practices to improve relationships between capacity building and internal customer performance. Capacity building has a significant impact on employees' productivity (Wanyama & Mutsotso, 2010). Capacity building and management support morally develop individuals, organize their abilities, and enhance the organizational performance and productivity (DeJoy & Wilson, 2003).

The theoretical model of capacity building proposed by Ertsås and Irgens, (2021) builds on the conceptual relationship between theory and practice are entangle in processes rather than static and dichotomous categories. The capacity building approaches identified are the diffusion of innovation theory, ecological model, transformational learning theory, taxonomy of learning framework of Bloom, interactive systems framework for dissemination and implementation model (Bergeron, Abdi, DeCorby, *et al.* 2017). Learning process is conceptually connected to strategic capacity building activities aimed to develop personal and technical skills to benefit groups, teams, and organizations. Capacity building and mechanisms that foster learning are mutually conditional involving intentional interventions and activities including relationships, resources, communication, and leadership systems (Glaser, Brömmelstroet, and Bertolini, 2019) that process changes over time.

An analysis for learning in capacity building process needs a longitudinal qualitative approach based on the dynamic relationships leading to capture the essence and evolution of variables that have an impact on growth (Hairon et al., 2017; Montes et al., 2005). Organizational learning is an attribute of capacity building activities, conditioned to a learning context and institutional commitment for innovation process (Mirimoghadam and Ghazinoory, 2017, p. 271; Shiel et al., 2016) and mechanisms that foster learning.

Practitioners use the capacity building theories, models, and frameworks according to their organizational interventions. A theoretical capacity building framework is proposed by Wassem, Ahmad Baig, Abrar, Hashim, Zia-Ur-Rehman, Awan, Amjad, and Nawab (2019) to describe relationships between capacity building, managers' support, an employee performance with the moderating variable of employee retention.

Capacity building and management support contribute to create a sustainable competitive advantage.

THEORETICAL FRAMEWORK

The theory of organizational resilience may help to build resilience capabilities to overcome the challenges of adversity, no continuous and disruptive environment, manage disasters and crisis. Organizational resilience has a diversity of responses to adversity using functional resources and capabilities to respond in a specific context and operate under several conditions. Organizational resources and capabilities facilitate resilience.

An interdisciplinary approach to organizational resilience theory is useful to expand the conceptualization to include transformative changing levels of ecological adversity to develop resources and capabilities aimed to mitigate the negative impacts. Conceptual advancements of organizational resilience combine the ecological, psychological, and economic perspective linked to the capability building as a formative construct. The functional dimensions of biodiversity aids ecological resilience leading organizations to prepare resources and building capability redundancies to anticipate adversities (Folke et al., 2004: 570)

A general organizational resilience theoretical framework provides the identification and assessment of the appropriate measures to address, enhance and optimize the capabilities of a resilience approach based on risk tolerance, threat environment and the organizational mission needs and goals (McLeod et al., 2016; Dreyer, P., Langeland, K. S., Manheim, D. McLeod, G. and Nacouzi, G. 2016). The organizational resilience framework based on transdisciplinary, interdisciplinary, and multidisciplinary contributions that support activities and actions of the different organizational actors and stakeholders sharing resources, capabilities, methods, and tools aimed to identify unforeseen crisis and face catastrophic events.

Organizational resilience and adaptation depend on the assessment that organizational actors and agents do evaluating their sensemaking processes, the access to their resources and capabilities in relation to anomalous weather variabilities and conditions. The alternative sensemaking focus on the organizational resilience in exploring the emerging capabilities required for the survival of an adverse collapse and rebuild growth performance.

An empirical framework may give grounded basis to resilience capabilities to be applied to a range of organizational conditions. Organizational resilience framework supports the capability development to deal with unexpected events and disruptions-based risks.

A framework of organizational resilience uses the key concepts and their relationships and interactions of resilience capabilities to organize an heterogenous field as the basis for the operationalization. Relational resilience activation model emerges when the organization learns to adjust to adversity strengthening its capability to overcome future risks and disruptions (Mallak 1998; Teo et al. 2017).

A framework related to crisis and organizational resilience is developed by Williams, et al (2017), to define capabilities for organizing, durability and adjusting to disturbances. The crisis and disaster management theoretical and empirical framework provide limited knowledge and insights aimed to strengthen organizational capabilities in organizational resilience to deal with impacts (Boin & McConnell, 2007; Rosenthal & Kouzmin, 1996). The resilience management model defines areas to include asset management, risk management, people management and resilience development to be used as a benchmark of organizational capability (Caralli *et al.* 2010). Resilience is a process that includes the development a broader store of capabilities (Limnios et al. 2014).

Organizational resilience has the dimensions of impact resistance and rapidity. There are two dominating organizational resilience approaches: the resistance, and the containing approaches that have shown limitations. These limitations are overcome by the development of an integral capability-based model of organizational resilience. This model integrates the elements and components of the organizational resilience and focuses more on the recovery phase of resilience.

By integrating the resistance and containing crisis approaches into an integral and capability-based model of organizational resilience, there is a reference to the long-term oriented recovery resilience that requires analytic, evaluative response measures and policymaking to identify the best practices to improve mitigation and preparedness (Boin and van Eeten 2013: 431; Boinet al., 2010: 4; National Governors' Association, 1979: xv).

Elements of organizational resilience is the mobilization of resources and capabilities during the crisis (Doern, 2016). Organizational actors and agents can have access through improvising and mobilize resources and capabilities of resilience for recovery (Weick et al., 2005). Resources and capabilities for organizational resilience contribute to growth opportunities.

The impact resistance is the capacity to withstand damaging effects and rapidity is an organizational capability to recover and restore the previous state of disturbance and to improved state after the damaging impact (Linnenluecke & Griffiths, 2010; McDaniels et al., 2008).

Organizational resilience has the possession of cognitive and behavioral resilience capabilities that give support to the realization and reactive resilience capabilities and of the potential and proactive resilience capabilities. Despite the differentiation of cognitive, behavioral, and contextual dimensions of resilience (Lengnick-Hall and Beck 2005, 2009; Lengnick-Hall et al. 2011), they are always in interplay between behavioral and cognitive capabilities.

The interplay of cognitive and behavioral elements of organizational resilience, the contextual factors such as power, resources, social capital, etc. are necessary to develop the resilience capabilities and success full resilience processes. The behavioral resilience enables to learn the situation, to use the resources and capabilities and to move the organization forward through collaborative actions.

Resilience capabilities in organizations are complex, socially embedded and path-dependent to be analyzed by the use of observational and conversational methods of analysis on environments, developments and competitive advantages management (Teixeira and Werther, 2013). Prior organizational knowledge based on the capabilities as the basic drivers for organizational resilience is the source of power, the main social resources, and responsibilities. Social resources have a positive influence on the development of coping capabilities for organizational resilience.

BUILDING AND DEVELOPMENT ORGANIZATIONAL RESILIENCE CAPABILITIES PROCESSES

Theoretical assumptions underpinning the capabilities of resilience can be learned by organizations to be applied to adverse conditions. The underlying assumptions affect the organizational resilience capabilities building. Organizations build resilience capabilities based on a range of antecedents, organizational internal factors, and outcomes, all of which affect the make-up of capabilities development. Organizations must balance internal resilience capabilities and external influences (Erol et al. 2010) A model of organizational resilience should outline the factors and antecedents to adversity and the internal capabilities of organizations to react to adversities with a positive reintegration.

The transformational perspective of organizational resilience is based on the interpersonal factors that lead to organizational capacity of individual resilience used to generate, managed, and employ resources and capabilities to create a supportive environment and overcome challenges. Organizational resilience capabilities are learned according to environmental changes outside the organizations. Building the capability in resilience based on the processes of sensing, seizing, and transforming, corresponding to before, during and after adversity. Organizational resilience is achieved in practice of organizational capabilities that provide support for the internal workings and conditions although they are required by the different phases of the process.

The concept of resilience from human resources management perspective is based on training considering that the organizational capacity for the development of resilience derives from specific organizational capabilities, conceptualizations, processes, routines, practices creating a diverse and adjustable integration (Lengnick-Hall et al. 2011)

Organizations build the resilience capability considering the contextual factors of the actor's decisions. Constraints and opportunities in the decision context have effects in the way actors in organizations build the organizational resilience capabilities. Adversity has an impact on the resilience capabilities in different contexts which may require theory-building to understand the building capabilities.

The organizational resilience capability loop embraces both adverse and advantage orientations of performance and growth. The resilience capability loop is repeatable and secure. The organizational resilience loop model extends to routines and heuristic based capabilities which can be built and applied at any time in anticipation of adverse events and in any organization adopting the resilience perspective, rather than assuming a favorable environment. Organizational resilience capabilities are built to cope the adverse conditions arising from the orientation addressed on the antecedent conditions of the environment.

Building capabilities in organizational resilience to remain capable may lead to the collapse trap when the capabilities are gone. Building the organizational resilience capabilities enable to cope with any kind of shocks.

Resilience in organizational settings is a process of capability building than as a trait requires innate orientations (Taleb, 2012). Building organizational resilience capability is a process model developed from a construct across all domains with emphasis in the psychology domain (Luthar, 2006; Masten, 2007, 2014; Richardson, 2002). Building an organizational resilience capability is based on higher order constructs to identify the critical parameters.

The resilience-as-a-process perspective that blends with organizational routines and capabilities. The process model thrives adversity by resilience and agility by differentiating routine-based capabilities and heuristics (Lengnick-Hall & Beck, 2009). If key resources and assets remain intact in less severe adversity, then heuristics and routines are part of the make-up of organizational resilience capability. Organizational resilience capabilities are built based on routines and heuristics affected by salient antecedents, internal factor governing and the outcomes. The combination of different practices of both heuristics and routines are needed to build organizational resilience capabilities.

The heuristics and processes built in organizational resilience are based on the anatomy and types of threats and disorganizations experienced by the organization and the learned knowledge and skills. Organizational resilience capability building considers the anatomy of capabilities and how the actor´s knowledge and skills cohere into processes that are more collective.

Resilience collective capacities building is an inclusive process that involves the individuals, organizations, and communities' actors to interact, use and build its capability endowments adjusted with the environments to maintain functioning prior to, during and after any adversity. These endowment capabilities are cognitive, behavioral, emotion and relational. The response capabilities are cognitive, behavioral, and contextual (Williams et al. 2017). An inclusive perspective of organizational resilience must integrate knowledge from risks and crisis as pre-adversity capabilities, crisis organizing and adjusting and post crisis response (Williams et al. 2017). The organizational response capabilities are the vulnerability considered as the acceptance of crisis and resilience representing the level of tolerance to cope with adversity (Gaillard 2007).

Heuristics is part of the make-up of the organizational resilience capability development if resources are decimated and deploying routines become unavailable. The sequence heuristic-based capabilities are the critical element of building organizational resilience based on individual skills (Miller, Eisenstat, & Foote, 2002). Heuristics is part of the makeup of resilience capability in circumstances when there are limited key resources and assets.

Routine based capabilities achieve efficiency but lacks flexibility to respond to adverse conditions while heuristics or simple rules conserve cognitive and operating resources have an impact on capabilities required to navigate through uncertainty and survive any disruption (Felin, Foss, Heimeriks, & Madsen, 2012; Winter, 2013; Bingham & Haleblian, 2012; Mousavi & Gigerenzer, 2014). The organizational resilience capacity derives from a set of organizational capabilities, processes, practices, routines aiming to create a setting diversity and adjustable integration (Lengnick-Hall and Beck 2005, p. 245). The knowledge of building the resilience capability can be passed to early-stage ventures.

Organizational resilience capabilities building can follow different patterns based on simple rules to enable decisions to apply to uncertain adversities. Building capabilities in organizational resilience and leading into a selection method of heuristics when resources uncertain, unstable and collapse and the routines are unreliable. Heuristics based organizational resilience capability model functions across operating conditions (Bingham & Eisenhardt, 2011).

The theoretical model of resilience capability building based on heuristics behavior-action of individuals in the organizations and their attitudes of recovery from collapse considered as a resilience capability. An organization that can apply its capabilities in actions enhances resilience to confront further adversities that may have an impact upon it. Practices of organizational resilience are evidence of actions that may render reintegration into different organizational capabilities.

Organizational resilience is achieved through preparation and development of capabilities and functions necessary to deal with unexpected events (Kendra and Wachtendorf, 2003). Preparedness for formalization of organizational resilience activities may result in an enhanced capability to respond to disruptions, although strong orientation does not necessarily correspond to resilience formalization.

After a disruption, resilient capabilities can be reintegrated aimed to regain the performance levels (Richardson, 2002). Resilience reintegration intends to exceed the previous performance levels existing before the adversity and the declining results. Resilience reintegration orientation is part of the resilience theory that affects the development of capability and the intended ends.

Organizational capabilities form stages of the organizational resilience process. Each resilience stage requires different capabilities for resilience-enhancing practices. Organizational resilience focus on general capabilities and routines (Lengnick-Hall and Beck, 2005, 2009; Lengnick-Hall et al. 2011).

In organizational environments of high uncertainty, fluency in organizational routines becomes essential to improve the capability of organizational resilience. The organizational resilience framework improves the capabilities and abilities to anticipate, prevent, manage, and respond to any disruption-related risks, ensuring continuity of normal operations.

The essence of organizational resilience capabilities is the dealing with change, risks, and environmental jolts. Organizational resilience is the perpetual adjustment and anticipation to develop proactively the capabilities and capacities to change before any disruption-based risks. The organizational capabilities and processes to develop resilience organizations remains as a black box. The capacity of an organization to develop resilience derives from a set of capabilities, practices, routines, and processes (Lengnick-Hall et al. 2011) used to move forward.

Organizational resilience is dependent on the individual resilience capacities and consists of organizational process capabilities emerging from coping with unexpected events to generate resilience outcomes expressed in organizational routines (Nelson & Winter, 1982). Individual resilience is the starting point as an additive composite for organizational resilience of capabilities and actions (Lengnick-Hall *et al.* 2011). Equifinality of organizational resilience-related capabilities is different for small and medium sized companies than for large companies (Aleksić *et al.* 2013; Burnard and Bhamra, 2011; Chan, 2011; Dewald and Bowen, 2010; Gunasekaran, *et al.* 2011; Ismail *et al.* 2011; Pal *et al.* 2014; Sullivan-Taylor and Branicki 2011).

The foundations of organizational resilience capabilities can be applied to dismantling and rebuilding processes while navigating through uncertainty (Weick & Sutcliffe, 2007). Organizational decline offers some insights in skill building for resilience but may not incorporate the combination of both resilience and capabilities. Decline and rebuilding phases of organizational resilience require different set heuristic capabilities separated by the operational stability threshold on access to a determined level of resources.

Organizations build resilience capabilities subject to below or above their level of stability. The organizational decline, collapse, and rebuilding heuristics, enhance the organizational resilience capability. The foundations of organizational resilience capabilities can be applied to dismantling and rebuilding processes while navigating through uncertainty (Weick & Sutcliffe, 2007).

Disorganization is an opportunity for the organizational resilience capabilities repertoire to respond, cope and growth. The disorganization and collapse of resources deprive the organization of building resilience capabilities and handling adversity (Cheng & Kesner, 1997). Adopted organizational resilience is supported by the built and developed capabilities to manage the resources available. Management of organizational resilience must be bi-focal consciously nurturing the capabilities and capacities to function during disorganization.

Resilience requires an ability to withstand a disruption with high degradation and failure, without reduction of capabilities and without representing a safety hazard. Non-material factors have the potential to enhance resilience in an environment of budget and fiscal constraints and technological capabilities. An organization must invest in organizational resilience capability building and development leading to better incarnations of the core business and to remain committed subject to the specific conditions for a period before exit (Peteraf et al., 2013; Dew, Goldfarb, & Sarasvathy, 2006; Watts & Paciga, 2011). Organizational resilience capability building needs specific development to suit specific circumstances.

The resilience capabilities of flexibility, reaction speed and velocity, access to timely information, and collaborations in the supply chain resilience during the financial crisis limited the negative impacts on costs, revenues, and targets (Juettner and Maklan, 2011).

CHALLENGES

Organizations as societies are facing increasing number of major challenges, adverse events, and disasters (UNISDR, 2015, vander Vegt, Essens, Wahlström, & George, 2015; Tierney, 2014: 238). High-reliable organizations accept uncertainty as the condition of their current operations (Leveson et al., 2009; Sutcliffe & Vogus, 2003) despite there are disparities between organizational reliability and organizational resilience, facing some theoretical and empirical challenges (La Porte, 1996; Leveson et al., 2009; Rijpma, 2003).

Organizational resilience has increased the research agenda on the theoretical and conceptual literature on the notions and factors, the elements, the challenges. The theoretical concept of resilience and methods to improve operational resilience remain as challenges for academics, researchers, and practitioners (Klein et al. 2003). The development of a multi-level resilience concepts and constructs have methodological challenges (Chen *et al*. 2005) and needs further consideration, such as the measures presented by McCann and Selsky (2012) at the levels of employee, team, organization and industry. Measurement of resilience challenges the use of a required empirical and context dependent measurement tool. Organizational resilience is the ability to withstand challenging and unexpected shocks through the firm's response to prior challenges (Gao *et al*. 2017).

Organizational resilience is the ability to weather and withstand crisis-associates challenges (Fleming, 2012). An organizational resilience is the ability that result from a complex process to match internal and external challenges with the capacity to shift them into opportunities (Witmer & Mellinger 2016). Resilience is the development of inner robustness in the ability to anticipate challenges using the available resources reacting appropriately (Welter-Enderlin & Hildenbrand, 2006).

Resilience becomes a priority for the new challenges posed by potential cyber security threats. With many organizations sleepwalking into chaos and disaster depending on the nature of the challenges, resilience in organizations is difficult to recognize, identify, implement, and sustain. Individual resilience starts accepting the reality of unexpected events to be able to cope with them (Coutu, 2002). This phenomenon is discussed as "the cognitive challenge" in organizational resilience (Hamel and Vaelikangas 2003, p. 54). It requires a shift in mind and servant leadership. Organizational resilience requires a servant leadership agenda to mobilize people to meet the challenges.

Organizational resilience requires leadership to coordinate and direct from the bottom up the visions and targets to identify and implement solutions to the emerging challenges. However, tensions emerge between a supportive leadership during times of change and demanding leadership required to sustain the organization in balance between consistency and flexibility, and defense and progression.

Organizational resilience is an expression of capability growth after trauma. Organizational resilience (Denyer, 2017) and high reliability organizations (Roberts, 1990) are a capability approach that challenges the planning approach. The incorporation process of a trauma into the organizational resilience capabilities repertoire enable to build tools to manage a strong resistance for adverse events. Each one of the organizational missions has unique demands of resilience but there are several features and challenges that are common such as awareness and information sharing, flexible balance between distributed and centralized decision making, structures and cultures, and environmental risks.

Long-term organizational resilience requires holistic capabilities enabling to hold and strive for continual organizational resilience, which may be drawn as a feedback loop and linked to the organizational culture. Organizational resilience is the capability that link culture and resilience (Parsons 2010). Building an organizational resilience capability in a holistic management framework to identify threats and their impacts might cause to the interests of stakeholders, their reputation and value creation (British Standards Institution, 2006). A holistic approach of organizational resilience balances the internal capabilities and the external influences.

The mechanisms for specific resilience and general resilience challenge the flexible response capabilities. Insights on organizational resilience are gained from analyzing mechanisms that foster the resilience capabilities. Assuring the development of organizational resilience against specific and general unprepared threats that make the organization potentially more vulnerable and rigid, has several challenges related to the risks, needs and capabilities required for an optimal solution. Resilience is the ability of a system to respond with the required capabilities to the environmental system failures and challenges (Sheton, 2013). The indicators of resilience are categorized as specific, general, and universal presenting some challenges.

Organizational resilience challenges the best practices to find guidance as a defensive, preventative control and mindful action or progressive perspectives. Organizational resilience is challenged by the multilevel variability for assessing the indicators and the integration of the whole system. Communities facing similar challenges may have relevant approaches of striving toward resilience.

CONCLUSION

It is an imperative to study the interdependencies and interactions to capture resilience capabilities in different organizational contexts to build a strong theoretical framework for more effective organizational resilience management. It is urgently needed to find more robust conceptual foundations of organizational resilience and its underlying assumptions about capabilities building to cope with disruptions and threats.

Organizational resilience adopts the best practice to deliver continual organizational improvement, competence, and capabilities. Organizational resilience requires to adopt best habits and practices to deliver improvement by embedding capabilities and competences, from vision, values, behaviors, and culture. The improvement of organizational resilience is challenged by their inability to rely on trial and error (Weick, Sutcliffe, and Obstfeld, 1999)

Individuals like organizations can build capabilities and abilities in resilience to become more competent and confident, create a growing positive organizational culture able to face organizational change as a less stressful opportunity while achieving more control over the trends of the environment in the future.

Organizational resilience is a measure of the combination of abilities, capacities, and capabilities that allows the organization to withstand disturbances and survive. Organizational capabilities to overcome vulnerabilities is one of the best measures of organizational resilience (Pettit et al. 2010, 2013).

Building organizational resilience requires investments on resources and capabilities to ensure the analysis of alternative and options of operations to face disruptions based on risks. Investments on resilience resources and capability building to respond to turbulence. Organizations can deploy resources and capabilities to implement resilience mechanisms aimed to deal with crisis responses and temporal and spatial discontinuities, disasters, and crisis. The temporal dimension of an organizational resilience capabilities building is related to the re-building process to accomplish outcomes that affects the organizations.

Every organization has its own way to achieve its organizational resilience which has a certain degree of heterogeneity inherent to different organizations and depending on its resources and capabilities. Organizational resilience requires activated, combined, and recombined resources to face challenges (Sutcliffe and Vogus, 2003).

Organizational resilience as a capability-based may have common paths, may be equifinal to the organization or both aspects. The integral and capability-based concept of organizational resilience bridges the gap with a processual notion with the capabilities to prepare for and respond to breakdowns.

Organizations must manage resilience to climate changes and extreme weather by using efficiently organizational resources, capabilities, and ideologies through the transferable and underlying mechanisms and processes to different contexts and sectors. The entrepreneurial and resilience mindset as an organizational capability can emerge from the identification and recognition that organizations are vulnerable and organizational crisis events are part of the normal life.

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Chapter 12
Resilience of the Hotel Industry in COVID-19:
The Indian Context

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ABSTRACT

COVID-19 has resulted in restrictions on travelling and public get-togethers. Amid the pandemic, one of the industries to be the most severely affected is the hotel industry. In the post-covid period, the industry is struggling for its subsistence due to mounting debts, change in behavior and perception of consumers, and lack of cash flows. This has resulted in loss of employment and has also negatively impacted allied industries. However, hotel entrepreneurs have shown resilience amid the crisis and have begun to explore novel opportunities. Hotels have adopted innovative technological and digital ways to satisfy the needs of the consumers for a contactless experience. The objective of this chapter is to explore the responses of the Indian hotel industry to the pandemic and risks associated with it. It explores the new paradigm and challenges for the industry and explains the resultant new trends in the hotel industry. The emphasis is on the exploration of long-term recovery and resilience of the hotel industry in India along with the policy measures and implications for the hotel industry.

INTRODUCTION

Covid-19 pandemic has affected every single industry across the globe, in a way or the other, but the hospitality and tourism industry has been the affected most severely. Hospitality establishments in India and other countries had either ceased to operate or curtailed their operations to a minor fraction of their

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pre-covid capacity. Millions of workers employed by the industry lost their jobs. The pandemic has affected the hospitality industry and all its stakeholder groups- employers, employees, suppliers, vendors, customers and also the regional and local economies and communities that depend on the industry for their livelihood. Hospitality industry has been the worst affected by the outbreak of covid-19 pandemic and this sector will also take the longest to recover as tourism and travel has been affected at all levels- regional, national and global. The objective of this chapter is to explore the responses of the Indian hotel industry to the Covid-19 pandemic and the risks associated with it. It also delves into the opportunities and new prospects for the industry in the new normal. The emphasis of the chapter is on exploration of long-term recovery and resilience of the hotel industry in India.

BACKGROUND

As the hotel industry is faced with the unprecedented situation, the second wave of Covid-19 brought with it new restrictions and measures. Amid the second wave, India is facing the highest ever number of active infection cases and casualties. This has made the situation more uncertain for the hospitality industry, particularly the hotels. Covid-19 had enforced restrictions on travel, due to which the hotels were witnessing zero occupancy of their rooms and banquet/ convention halls during lockdown. The hotel industry had hardly begun to experience a slight increase in demand when the second wave of the pandemic halted everything once again. The impact of COVID-19 on the hotel industry has been extremely disruptive and the industry is under immense financial stress. After having suffered unprecedented damage after last year's (2020) lockdown of over eight months, the hotel industry is looking at another year of similar or even worse consequences. According to the Federation of Hotels and Restaurant Associations of India (FHRAI), the apex body of the Indian hospitality sector, more than 20 per cent of the hotels and restarurants haven't resumed operations completely after the lockdown was ended and 30 per cent of such establishments in India have been forced to shut down permanently due to financial distress. The rest continued to operate despite the losses and current revenues are less than half of the pre-Covid earnings (FHRAI, 2021).

Due to the pandemic, the hotels were compelled to reorganise their business plans accordingly. In this scenario the hotel industry has been trying to continue their operations safely and mitigate the risks emanating from the pandemic. The hotels have to ensure the health and safety of their employees and guests along with the compliance of the regulatory requirements enforced by the government. Hotels have drastically transformed their standard operating procedures with the adoption of technology to ensure social distancing and better health and hygiene practices.

MAIN FOCUS OF CHAPTER

Pandemic and Resilience

Globally, among the sectors most affected by the coronavirus and the least economically resilient include construction real estate activities, tourism and hospitality, trade, and retail services, which are very sensitive to the overall health of the economy, so that further prolonged recovery, combined with relatively low resilience, could lead to significant vulnerability further down the road. (Mckinsey, 2020).

COVID-19 is an unprecedented adversity that has impacted the world. For all businesses, the critical events of 2020 initiated a period of perseverance, resilience, and innovation. During COVID, there was a refocus on how businesses can build resilience and react in a resilient manner to the ensuing crises. Much has been made of how resilient businesses can better deal with crises and disasters (Jiang, et al. 2019; Linnenluecke, 2017). Resilience is based on the strength of an organisation's business processes, its external connections and its ability to pivot. It matters, as it signals how an organisation will fare when crisis strikes, and its chances of long-term success. Building long term resilience relies on many aspects including leadership, innovation, access to capital, and above all, having the right people with the right skills.

Adversities compel organizations to think innovatively about new opportunities and prospects. Being innovative requires perseverance to overcome uncertainties and risk. Therefore, resilience is important for survival during adversities and for devising new ways of doing business in the uncertain environment (Sweetman et al., 2011). According to Hamel and Valikangas (2003), "innovation is an opportunity of resilience, since it allows organization to continuously anticipate and adjust to a broad range of environmental turbulence". The complication and the magnitude of Covid-19 pandemic compelled the organizations to stride beyond the customary ways of doing business (Cankurtaran & Beverland, 2020). Innovation became extremely essential for the hotels to continue their operations as restrictions imposed by the governments made it impossible to continue their usual operations. The outbreak of the COVID-19 pandemic unsettled the global economy and has forced the businesses to be resilient and to devise alternate ways for generating revenue (MacKenzie, 2020; McKibbin & Fernando, 2020). Along with the pandemic, the business operations across the world were mostly affected by the measures taken by the governments for controlling the spread of the virus. Moreover, in view of the likeliness of reoccurrence of the pandemic due to new viruses and/or mutations, businesses are obligated to think seriously about the measures they can take in the future to tackle pandemic situations (Cankurtaran & Beverland, 2020).

Resilience is the ability to cope with adversity (Seligman, 2011). It is "the capacity to maintain, or regain, psychological well-being in the face of challenge. The definition underscores the capacity to flourish, develop and function effectively despite difficult circumstances or events" (Ryff, Friedman, Morozink & Tsenkova, 2012). Resilience extends beyond bouncing back to a stable state after an adversity, it is about reacting to the conditions and ultimately not only deal with disruption but discover growth in the new opportunities (Bhamra, Dani, & Burnard, 2011; Gittell, 2008). Adversities like the Covid19 pandemic can elicit positive responses in forms of innovations and result into new ideas and opportunities for business. In the hotel industry, organizations are not able to continue their operations due to the lockdown measures and the consequences. These business owners have to discover new strategies and new ideas, in order to survive the crisis.

Hotel Industry in India

The hospitality sector in India employs around 45 million people and provides livelihood to many more. It also contributes 9% to India's GDP. The industry is a provider of significant number of direct and indirect employment. Hotels employ all types of workers-skilled, unskilled and semi-skilled. The hotel industry has vast offerings for the guests, from humble budget hotels to luxury and ultra-luxury hotels. According to the Federation of Hotels and Restaurant Associations of India (FHRAI), there are about 53,000 hotels in India in the organized sector. Around ninety percent of the total inventory of the hotel industry is in the form of budget and standard hotels. The Indian hotels are amongst the best globally and have been awarded with accolades for excellent services to both business and leisure travelers. The hotel industry showcases the Indian architecture and the rich heritage of India. Hotels today are the centres for promotion of Indian way of life, they brandish and promote Indian textiles, culture, art and food. Hotels have also introduced and attracted the world to ancient Indian practices of Yoga and Ayurveda. They offer an opportunity to the people to experience the rich heritage of India at several tourist destinations.

Rapid urbanization and modernization has led to the growth of hotel industry in Indian in the past decade. According to CARE (2018) the hotel industry in India was expected to witness a healthy growth in revenue. This growth could be attributed to the consistently increasing middle class consumers, increasing disposable incomes, young population, and changing lifestyles. There are various other vital aspects that drive the growth in the hotel industry including India's attraction as a medical tourism destination; steadily growing Meetings, Incentives, Conferences and Exhibitions (MICE) segment; and, an increasing fondness for travel among the millennial population. Young consumers are now willing to pay for their convenience, new experience, and ambiance.

Hotel Industry and Covid-19

The domestic hotel industry has been affected severely by the pandemic and subsequent lockdowns, as it constrained mobility and hotel occupancies across India. A two-month lockdown was implemented by the Indian government across the country starting March 25th 2020, to curb the chain of the virus. The nationwide lockdown forced 1.3 billion Indians to stay indoors. Because of this lockdown economic activities were stopped and it had overwhelming negative effects on the economy as all manufacturing units, transportation, services, and business institutions were closed during the public curfew (Singh, 2020). Activities and business of all the industrial sectors were disrupted (Kumar et. al,2020). Due to the constraints on travel, movement, and public gatherings, hotel industry in India was worstly affected.

Covid-19 has proved to be the worst nightmare for the hotel industry as their business activities were halted due to the pandemic. Even after the lockdowns were lifted the guests are avoiding hotel stays due to the threat of the virus. Industry experts have projected that half of the hospitality establishments might not be able to survive the crisis (Severson and Yaffe-Bellany, 2020). Therefore, devising a new strategy to maintain and create consumer demand is crucial for the industry to overcome the implosion (Sigala, 2020). The hospitality and tourism sectors have been knocked down by COVID- 19 as these businesses may contribute to spread of the virus (Nicola et al.,2020). There are multiple factors which make hotel industry prone to health crisis such as the number of people working in hotel teams, exposure to dometsic and international travellers, cross-contamination and the presence of numerous mechanisms of pathogen conveyance such as surfaces, cutlery and crockery and food (Leung and Lam, 2004).

The COVID -19 pandemic has led to demand destruction in excess of 90% for the tourism and hospitality sector. A recent study by McKinsey highlighted aviation and hotel industry as the worst impacted industries in India; with around 75% output decline in the first quarter of financial year 2021 as compared to the last quarter of financial year 2020. Also, hotel sector appears in the list of strained sectors in terms of Debt Service Coverage Ratio. The revenue losses to the Indian hotels industry are expected to be reaching an amount of approximately Rs. 90,000 crore in the year 2020. (Hotel Association of India). According to the rating agency ICRA, hotel occupancies all over India reached an all-time low of merely 18-20 percent in eight months of the financial year 2021, as compared to 64-65 percent in the previous year. The report of ICRA also states that in the presence of restricted international travel, the industry is expected to shrink by 65 percent in the financial year 2021, coupled with huge operating and net losses which is likely to dust away the cumulative profits of the last four years.

However, a demand recovery may be expected for the industry towards the end of financial year 2021-22 as vaccine rollout increases. In contrast to international tourist arrivals, the domestic tourism is likely to recover at a faster pace as the outbound leisure travel will be diverted to domestic tourism. The absence of business travel and grand MICE events will affect the recovery of the hotel industry. Though much will depend upon the spread of pandemic, resulting control measures and the success of the vaccination programs.

Amid the falling revenues, the hotels are trying their best to survive by focusing on controlling their non-team expenses such as administration and marketing costs. Hotels are also ensuring the well-being of the local people who are employed on the properties of the hotels. They are conducting vaccination drives for their employees. The key to recovery for hotel industry will be brand loyalty and the safety measures every hotel is adhering to. Mehta, Kumar and Ramkumar (2021) conducted a study to assess customer satisfaction in the hotel industry during the pandemic period. They used sentiment analysis and topic modeling over customer reviews and found that customer satisfaction levels consistently improved in India. Government also has a critical role to play by ensuring that the right policy settings are applied so that businesses have a fighting chance in the wake of the COVID-19 pandemic. Steps are required to overcome the present slowdown in the hospitality and tourism industry by making an analysis of long term impacts of the pandemic at the earliest (Kumar, 2020).

NEW PARADIGM, NEW CHALLENGES FOR THE HOTEL INDUSTRY

Covid-19 has posed numerous challenges for the hotel business owners, who will have to quickly change their business strategies in order to be able to meet these challenges for a successful recovery (de Frietas and Stedefeldt, 2020). Hotel industry has some specific problems as its operations and business are affected by a plethora of external factors such as the work-from-home policy adopted by majority of the organisations, decrease in the number of business travelers and an overall decrease in discretionary expenditure on leisure and travel, depressed consumer sentiments, restrictions on social gatherings, curbs imposed by the government on international travel, quarantine requirements and most importantly disruptions in the operation of commercial flights. Moreover, there is fear among the travelers and virtual meeting trends have affected the hotel business. Covid-19 pandemic has triggered a shift in the consumption behavior of hotel consumers across the world, with numerous implications for the future. Social distancing and stay-at-home regulations have caused the organisations around the world to adopt online meetings and work from home arrangements. It remains to be seen that which of these practices will continue after the pandemic is over. As the crisis is not over yet, its impact in terms on the economic, financial, social and behavioral changes cannot be ascertained (Cross, 2020).

Hotel industry is a highly capital-based and high leverage industry, which means it has high investments as well as high operating costs. Hence in the pandemic scenario, the industry is faced with challenges such as severe financial crunch, difficulty in repayment of loans and an urgent need for extension of moratorium period. Some of the main issues faced by the industry players are payment of salaries, pending electricity bills, maintenance and overheads, debt repayments. Even during the lockdown many hotels have been forced to retain minimum staff for maintenance of rooms, gardens, kitchens etc. and have exhausted all their financial resources. The major challenge hotels are facing is the financial crunch due to no revenue because of the lockdowns since March. Due to no revenue, hotels are forced to pay reduced salaries of up to 50 per cent to their employees, however, the government did not give any concession on taxes for the lockdown period, including electricity charges, property tax, prohibition and excise tax, pollution control consent fee etc. Even after the lockdown was lifted the occupancies and business have been very low and therefore the major challenge before the hotels is managing operations cost and at the same time managing the debt repayments. Compelled by the financial constraints, majority of the hotels have enforced stringent cost control measures including reduction in the employees' cost, termination of contract workers, forced pay reductions and mandatory leave encashment.

Hotel industry has been hit hard by the virtual and online meeting trend during the pandemic. Due to COVID-19, more events, especially meetings and conferences, were held in a virtual format (Park & Jones, 2021). An important income generation source for the hotel industry is in the form of business travel, meetings, conventions, conferences and business events (Guillet & Chu, 2021). The hotels will also be able to accommodate less number of guests at their meeting and dining venues, for abiding by the norms of social distancing. This will dilute food and beverage revenues for hotels and hence, less profitability. Hotels have also been affected by low occupancy and the increase in room booking cancellations and are faced with uncertain short-term and long-term demand for hotel rooms (Jiang and Wen, 2020).

In a study by Deloitte (2020) it was reported that consumers have become warier about hygiene and risk of infection. In this scenario the hotel industry will have to build their business models around hygiene and pay utmost attention to this factor. However, this also involves an increased cost for the hotels. For the safety of the guests, it is now required that all the vehicles used by hotels are disinfected at the entry points and after each use. Hotels have to keep sanitisers at all prominent locations within their premises and encourage staff and guests for frequent use. Guest luggage also requires sanitization on arrival from outside the hotel. All rooms have to be disinfected and are allocated to guests after 24 hours. Also, the staff is also required to wear personal protective equipment (PPE). For the safety of their guests, hotels have to now maintain additional infrastructure such as sanitising tunnels, ultra-violet sanitising machines, foggers, automatic dispensers, shoe sanitizers and disposable linen. All these safety measures entail a significant additional cost for the hotels.

NEW TRENDS IN HOTEL INDUSTRY

Covid-19 pandemic has presented unprecedented difficulties for the hotel industry and it had devastating effects on both, the employee teams and the customers. The operations and revenues in the industry have been affected severely. But it has also triggered new research and innovation in the industry and some business owners have adopted innovative ways to continue their business operations. Despite the unprecedented crisis business owners are ready to take risk as risk-taking opens up avenues for many new opportunities (Mor, Madan, and Chhikara, 2020). Though human contact cannot be completely removed in the hospitality business but innovative solutions are being developed to decrease physical contact, which shall also reduce the risk of the spread of the pathogen (Vig & Agarwal, 2021).

The pandemic has made the industry concentrate on ancillary services like co-working spaces, food delivery, facility management for offices etc., to generate revenue. Hotels are also actively working towards curating customised 'Food Boxes' for corporates for offices in the vicinity. With this, the idea is to provide end-to-end solutions for corporates. Probably all these new revenue generation areas are here to stay in the industry. Due to the pandemic, many new trends have been noticed in the hotel industry.

As safety and wellness have become paramount, the industry is observing a few trends such as guests' preference for in-room dining over a buffet, compulsory usage of disposable containers and cutleries for food delivery in the rooms, increase in the number of food deliveries and careful evaluation of the menu and the ingredients' source by the guests. Some of these new trends have been discussed hereafter and are reflected in table 1.

- **Contactless experience through digitalization-** The industry is standing at the threshold of a major technological transformation because it can help to introduce creative approaches in conducting hotel business. As Covid-19 can spread through multiple infected surfaces, the hotels are finding new ways through technology to reduce human contact and to develop a contact-less experience for their guests. They have recognized the fact that digitalization and new technology can be an important aid in decreasing human contact in their service delivery (Vi et al., 2017). All the points prone to physical contact are being remodeled such as hotels have provided for services making provision for online reservations, enabling digital remote check-ins. "Touchless check-ins" have beeb facilitated via various apps, in which all information about the reservation made by the guest is already pre-registered. Some hotels have implemented contactless tracking device systems that allow contactless thermal scanning and check whether the guests are wearing masks while arriving at the hotel. Most of the hotels have introduced digital menus or QR-coded menus in place of physical menus, or allow the guests to view menu options on their personal devices and smartphones, which enables the guest to place an order without being required to touch the physical menu. However, skills and capabilities to handle complexity are crucial to building resilience, adapt to and seize the benefits of grand societal and technological transformations, including digitalization.
- **Artificial Intelligence-** Artificial Intelligence an urgent necessity for the industry. Hoteliers are planning to upgrade the hotels post the COVID-19 pandemic. Some hotels are looking to introduce voice control solutions. These solutions shall encompass Artificial Intelligence-based systems in several areas in hotel services such as voice-activated elevators, temperature screening, facial recognition, etc.
- **Staycation-** Staycations are emerging as the latest trends as people are looking to break the monotony after months of lockdown. Most people are currently opting for staycations in the same city or driving down to the nearest leisure destination to rejuvenate over the weekend. India has been a rich hub for tourism for decades, the COVID pandemic has coerced people into exploring the domestic charm. Domestic travel will be done to beat down the 'lockdown fatigues', as short travel is believed to be the antidote to stress. As more hotels re-open across the country, road trip vacations are picking up speed. Families are now staying at the hotels over weekends for taking a break from the usual routines and rigorous work schedules. People are looking for rejuvenation at weekend getaways and staycations to nature centric leisure destinations. This emerging trend is sure to help the hotel industry after the long period of lockdown.
- **Workcation-** Work from home has caused fatigue among the working population and working in a hotel is being looked at as a pleasant change for most guests. Since a lot of people are still working from home, many hotels have converted their rooms and spaces into workspaces at affordable prices. Many people have started travelling to other cities for work and other purposes, and it is only inevitable that the hotels functioning with stringent protective measures provide them services with safety. This option is also available to the guests who are relocating to a new city and

want a leisurely place to work from or simply want a comfortable space to stay in. Hotels are offering alternate office space solutions to cater to the needs of working professionals or organizations with an aim to provide efficient and flexible solutions.

- **Hotels for isolation-** Hotels are offering self-isolation and quarantine facilities for the asymptomatic patients of Covid-19. Hotels have partnered with hospitals for providing this facility to the patients who are asymptomatic or those who are mildly symptomatic. Hotels are offering comfortable and clean accommodation with in-room hygiene protocols and food delivery to such guests. In addition, on-site medical care has been made available to track key parameters as and when required.
- **Menu engineering –** Amid the concerns of customers regarding health and immunity, hotels have developed new menu options. The food preferences of customers have also changed due to the pandemic and many travelers are now interested in eating healthy. It is commonly known now that people with low immunity are more prone to Covid-19 infection. (Arshad et al., 2020). Travelers now prefer holistic meals and immunity-boosting food options. Hotels are now increasingly partnering with local suppliers to source their food supplies for meal preparations. Due to the pandemic, customers' preferences have shifted from buffet spreads to a la carte meals. So, for the purpose of facilitating less sharing, the hotels have made their buffet spreads pre-proportioned.
- **Digital Marketing-** The business world is witnessing a huge technological transformation as technology has become an urgent necessity for conducting business in the new normal through more innovative and creative ways (Dannenberg, Fuchs, Riedler and Wiedemann, 2020). Hotels have also adopted digital marketing tactics, novel technologies, and software application systems to reach and influence their customer segment. During the covid-19 crisis, smartphone and mobile marketing has also experienced a great high. In the near future digital marketing will continue to play a crucial role for the hotel industry to establish and maintain communication with the existing and new customers.
- **Virtual wedding parties-** Hotels are entering a new segment for virtual wedding parties during the pandemic. They are organizing the virtual tour of the hotel properties and are conducting online meetings for the guest queries. The new guidelines issued by the government for social distancing, favour domestic hotels as there is a cap on the number of guests allowed. In many states in India up to fifty guests are permitted to attend a wedding. In this scenario, hotels are hosting the weddings by strictly adhering to all norms social distancing, size of gathering and enhanced hygiene. Hotels are making use of technology for roping in their guests virtually. Guests can now host a party at the wedding venue at the hotel and web telecast of the wedding can be accessed by relatives and friends in different cities. Some hotels even deliver food baskets to the friends and relatives of the guests in the same city, to mark the celebration.

Table 1. Strategies to mitigate challenges in hotel industry

Strategy	Innovative Methods Used in Hotel Industry
Use of technology	• Contactless experience through digitalization • Artificial Intelligence • Digital Marketing
New services	• Co-working spaces • Virtual wedding parties • New food options
New trends	• Staycation • Workation • Hotels for isolation

SOLUTIONS AND RECOMMENDATIONS

The pandemic will have a prolonged effect on the hotels and long-term policies would therefore be needed to strengthen their resilience. The government needs to take a holistic and comprehensive view in this situation. The entire economy has been shrinking and the hotel enterprises have taken the brunt of the downturn. There is a need to look into the present-day issues but also keep a wider and longer view of how the hotel industry can move ahead. Financial and fiscal relief is only one of the ways the government can help; there are social and other commercial means that can be deployed to make an improvement in this pandemic era. FHRAI has also made a lot of recommendations and is continuously following-up with the Ministry to revive the tourism and hospitality industry. The top recommendations being: extension of term loan repayment by five more years, reversal of GST input, reduction of fixed charges in the electricity bills, a rebate of trade license fee by 50% and a waiver of liquor fee for hotels and restaurants. But it remains to be seen that how the government accommodates the needs of the hotel industry.

FUTURE RESEARCH DIRECTIONS

The chapter makes a qualitative study on the new challenges posed by the Covid-19 pandemic for the hotel industry in India. It also discusses the new trends noticed in the industry. But as these trends are a recent phenomenon, there is limited data available for these upcoming trends. Future research may focus on empirical research to find evidence for the effects of the new trends on the recovery of hotel industry.

CONCLUSION

This chapter has highlighted the new trends and the utilization of innovation in the hotel industry for handling the COVID-19 pandemic. Because of this extreme adversity, normal operations of the organizations were shut down, thus becoming creative and innovative has been urgent to create revenue and survive this crisis. Business resilience can further be severely tested by lockdowns when COVID cases surge. In India there have been several ‘lockdowns’ in various states over the last year. These lockdowns have severely impacted the economic activity. Resilience is maintaining the capacity to keep bouncing back from these lockdowns.

As businesses have shown resilience and continued to heal from the effects of the pandemic, there has been a shift towards solutions-oriented thinking. Adapting to unprecedented events requires the innovation of unprecedented solutions. Many changes have been induced by the major global transformation following COVID-19. The hotel industry has heavily leveraged technology to adapt to the ever-changing business environment. The role of technology has increased in the new world of contactless menus and digital payments. The entire hotel operating system would gradually get restructured and it will affect the human resource and finance operations as well. In the foreseeable future, hybrid events which combine virtual meetings with person-to-person meetings will become a part of the new normal. More importantly, a permanent change in consumer behaviour is possible; therefore, it shall be crucial to monitor and learn about changing consumer behaviour in a timely manner.

Recovery of the economy will be much contingent upon the spread of the pandemic and success of vaccination efforts. Business resilience also relies on containing the pandemic, so vaccination becomes critical. Resilience might depend on high rates of vaccination and building herd immunity around the world. In this way the cycle of lockdowns and consequent economic disruption can be ended. Like other industries and sectors, hotel industry is also optimistic that the ongoing vaccination programme is going to fetch desired results as millions of people are getting vaccinated every single day. The situation is still evolving, with the looming threat for yet another wave of the pandemic.

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KEY TERMS AND DEFINITIONS

Artificial Intelligence: Ability of computer systems to perform tasks that normally require human intelligence.

Contactless Experience: Use of technology to reduce exposure and human contact at various touchpoints.

Digitalization: Use of digital technologies for a new business model.

Isolation: The state of staying separate and alone.

Menu Engineering: Placement of menu items according to their popularity.

Workation: Working in an online mode while on vacation. Staycation: A vacation spent at the place of stay rather than going out.

Chapter 13
Salesmanship Skills in COVID-19 Times:
Is There Any Impact on Sales Strategy Implementation and Performance?

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ABSTRACT

The activities that depend on direct interaction with the customers were the most affected by COVID-19's restrictions. These include the activities developed by salespeople. This study aims to analyse the impact of salesmanship skills on sales strategy implementation and salesperson performance during the COVID-19 crisis. To achieve the research objective, the authors collected a set of data through a survey (n=517) to test a proposed conceptual model based on the literature. The findings of the study demonstrate that the salesmanship skills are an important resource in highly disruptive environments and impacts sales strategy implementation and salesperson performance. In addition, the study also reveals the important role of digital skills and intrinsic motivation during COVID-19 times. The results attained can be used as a guide to design an effective strategy for sales activities in adverse times.

INTRODUCTION

The Covid19 pandemic forced the closures of many companies, leading to an unprecedented interruption of trade in numerous industry sectors (Donthu & Gustafsson, 2020). For instance, the real estate

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sector was hit hard by the Covid19 pandemic (Ayodeji-Ogundiran et al., 2021; Chong & Phillips, 2021), mainly because lockdown and social distance rules affected the "traditional" negotiation process (Nanda et al., 2021). Consequently, this environment required particular resilience from salesperson and their ability to adapt effectively and restore balance in the face of Covid19 adversity (Luu, 2021). Moreover, a crisis/disruption situation like Covid19 challenges salespersons to effectively use available resources to create new business opportunities (Epler & Leach, 2021).

From the salesperson perspective, the limitations presented by Covid19 are practical in nature, because with remote work the normal sales process became physical distant and with limited social interaction (Rangarajan et al., 2021). One way to surpass these contingencies are to empower salespersons with new capabilities and skills (Epler & Leach, 2021). Another action taken by companies to face the Covid19 crisis, is to adopt the customer relationship management tools (Kang et al., 2021), where salespersons have an essential role in building long-term relationships with customers (Koponen et al., 2019). In fact, the salespersons were never as critical as they are now, because they are a key element in the negotiation process of sale in the real estate market.

Therefore, based on the above argument, this study aims to analyse the impact of salesmanship skills during the Covid19 crisis on sales strategy implementation and salesperson performance.

BACKGROUND

Salesmanship Skills and Sales Strategy Implementation

The Covid19 pandemic forced salespersons to adapt its "modus operandi" (Hartmann & Lussier, 2020; Luu, 2021; Rangarajan et al., 2021), providing challenges and opportunities for salespersons at different levels (e.g. human, task, technology, structure) (Hartmann & Lussier, 2020). Particularly in the real estate industry, salespersons worked under difficult circumstances, whereby digital sales interaction or limited face-to-face interactions were required. Covid 19 pandemic prompt the urgent need for real estate companies to change the physical store and adopt digital platforms for the multichannel retail business (Nanda et al., 2021). Therefore, the transition of salespeople's tasks occurred mainly in the way the operations were conducted (Rangarajan et al., 2021) as the basic salesperson functions remain the same. For instance, prospecting customers, interaction with customers, persuasion and negotiation, argumentation to surpass objections.

In fact, increased uncertainty during volatile times (such as Covid19), generally requires from the salesperson strategic capabilities to improve performance (Nowlin et al., 2018). For example, sales-influencing tactics, like persuasion, are important for converting leads to sales (Pöyry et al., 2017). The ability of persuasion to encourage the customer to make the final purchase decision is called salesmanship skills (Rentz et al., 2002). These skills also include prospecting for new customers, qualifying customers, identifying opportunities, present solutions to customers and close the sale (Rentz et al., 2002). The intermediary role of the salesperson demands the set of skills to persuade the owner of the property and the buyer (Ulaga & Kohli, 2018).

The implementation of the sales strategy refers to its execution and extension (Nowlin et al., 2018), but it also incorporates a question of resource deployment and allocation (Epler & Leach, 2021), which include new capabilities and skills (Epler & Leach, 2021; Luu, 2021). In fact, the skills are relevant

because, in the real estate market, more experienced salespersons significantly increase the probability of a successful transaction (Waller & Jubran, 2012).
In line with the above rationale, we propose the following hypothesis:

Hypothesis One: Salesmanship Skills had a positive and significant effect on Sales Strategy Implementation.

Salesmanship Skills and Sales Performance

Salesmanship skills explain a significant part of salesperson's performance (Singh et al., 2018; Singh & Venugopal, 2015). For instance, prospecting customers is a critical skill in the sales process, in which the objective is to find and qualify potential customers for a sales approach (Vieira & Claro, 2020). The adaptability, negotiation, communication style, among other actions are important factors to improve the salespeople performance (Rajan & Srinivasan, 2015). The salesperson proactiveness directly or indirectly impacts sales performance (Mallin et al., 2014). Decision-making skills and the ability to close the deal at the correct moment (when it is effective and profitable) are drivers for salesperson performance (Koponen et al., 2019). So, it is important to explore the link between salesmanship skills and sales performance (Singh et al., 2018).

Sales Performance is the effectiveness of the sales team, which includes the ability to generate revenue, sales, increased market share, achieve sales goals and objectives, and the ability to identify and sell to key customers (Behrman & Perreault, 1982). Hence, we proposed the following hypothesis:

Hypothesis Two: Salesmanship Skills had a positive and significant effect on Sales Performance of Salespersons.

Sales Strategy Implementation and Sales Performance

The sales strategy implementation is related to market performance and affects the sales performance of the salesperson (Terho et al., 2015). When salesperson implement the sales strategy as part of their sales process this has a positive effect on their sales performance (Inyang & Jaramillo, 2020). Thus, when companies use effective and appropriate strategies to maintain and retain customers, the performance of salespersons benefits from these strategies (Moghareh Abe & Haghighi, 2009). Particularly, with increasing uncertainty during volatile times (such as Covid19) it is important that salespersons combine their efforts and strategic capabilities to improve their performance (Nowlin et al., 2018).
Therefore, we proposed the following hypothesis:

Hypothesis Three: Sales Strategy Implementation had a positive and significant effect on Sales Performance of Salespersons.

Control Variables

The COVID19 pandemic generated major disruptions in the world of work, for instance forcing large-scale remote work (Tønnessen et al., 2021). Thus, the digital transformation challenge is no longer an option, but a necessity. Rangarajan et al. (2021) refer that the contact between salespersons and potential customers started to be more often remotely through digital tools than personal or face to face. Nanda et al. (2021) address the need for a hybrid approach, integrating personal and digital contacts.

In addition to the increasing need of salesperson's using digital technologies, Tønnessen et al. (2021) also pointed out the importance of the intrinsic motivation of employees to face the adversities of the Covid19 impact. In general, intrinsic motivation positively affects sales performance (Bodla and Naeem, 2014; Jaramillo et al., 2007). Guenzi and Nijssen (2021) also reinforce the role of salespeople's motivation in order to adapt their skills to the digital transformation accelerated by Covid19.

Although the digital skills and the intrinsic motivation are not the primary interest of the research, the above discussion suggests that those two variables are important to examine the Sales Performance of the Salesperson. Therefore, they are considered as control variables (Kish, 1959).

SALESMANSHIP SKILLS, SALES STRATEGY IMPLEMENTATION AND PERFORMANCE: AN EXAMINATION

The present research uses the Structural Equations Modelling, based on data collected from questionnaire. This technique is appropriate for examining causal and hypothetical relationships between variables (Marôco, 2014).

Sampling

This survey considers the sampling frame all the real estate salespersons that work in the Portuguese market. This study used a random sample of 4856 real estate salespersons. This list was acquired from the National Real Estate Directory, using randomness criteria.

Operationally, the questionnaire was sent via email, between the 1st and the 31st of January 2021 (during Covid19 time), personally addressed to salesperson`s email. The email text contained an explanatory introduction, the estimated response time and the indication of an electronic link to answer the questionnaire. In the end, 517 complete and valid responses were collected, corresponding to a response rate of 10.65%.

The earliest respondents (first 15 days with 287 answers) were compared with the final respondents (last 15 days with 230 answers). Student's *t*-tests revealed no significant disparities between these two groups, so it suggested no problem of response bias (Armstrong & Overton, 1977).

Characterizing the sample, 53.8% of the salespersons studied are male and 46.2% female. Regarding age, 30.4% are among 18-40 years old, 62.1% are among 41 - 60 years old and 7.5% over 60 years old.

Regarding the years of experience, 55.9% have among 1-10 years of sales experience, 36,9% between 11 - 30 years and 7.2% more than 30 years of experience. Finally, 53% of the surveyed salespersons have a university degree and 47% have secondary education or less.

Measurement

The three constructs used in this study are measured using scales already validated in previous studies, although modestly adapted to suit the research context and capture the data since the Covid19 pandemic. Specifically, Salesmanship Skills (Rentz et al., 2002), Sales Strategy Implementation (Nowlin et al., 2018) and Salesperson`s Sales Performance (Behrman & Perrault, 1982) were measured through a Likert-type scale of five categories, ranging from “1 = strongly disagree” to “5 = strongly agree”. Measurement items are displayed in Table 1.

The first control variable is digital skills and is based on a question that asks about the salesperson possession of digital skills. A Likert-type scale was used from 1 to 5 (1- No skills, 2 – Basic skills, 3 – Medium skills, 4 – High skills and 5 – Advanced skills). The second control variable is the level of salesperson intrinsic motivation during Covid19, and is measured on a Likert-type scale from 1 to 5 (1 – no motivation, 2 – little motivation, 3 – enough motivation, 4 – much motivation and 5 – total motivation).

Data Analysis Strategy

The statistical programs used for data analysis are SPSS 24.0 and AMOS 22.0. AMOS software is adequate to applying the Structural Equations Modelling, especially when the sample is large (Byrne, 2016), as in this study (517 observations).

Regarding the examination of control variables, the most common way to control its influences is through statistical control which aims to identify potential sources of influence during the analysis (Nielsen & Raswant, 2018). Therefore, the Generalized Logit Model (GLM) was employed to examine control variables. This statistical method allows evaluating the influence of control variables (digital skills and intrinsic motivation) on each of the five observed items that measure the construct Salespeople`s Sales Performance. This method is robust, flexible and very tractable to study the influence of one variable over another (Williams, 2016).

Test of the Measurement Model

Bartlett’s test of sphericity and Kaiser-Meyer-Olkin test (KMO) were applied. The KMO results are >0.7, which is considered appropriate (Hair et al., 2014). Also, the total explained variance of each construct was analysed and the outcomes are >0.6, so it is also considered suitable (Hair et al., 2014).

Based on the analysis of the principal components and Varimax rotation method, the results of factor loadings confirm that the observed variables correspond to the theoretically defined constructs (Byrne, 2016; Hair et al., 2014). Then, Cronbach’s alpha was employed to examine reliability or internal consistency of the constructs. The results were > 0.70, so it is considered an indicator of adequate reliability (Kline, 2016; Hair et al. 2014). Finally, the maximum likelihood estimate was used to test the reliability and validity of the measurements (Table 1). The indicators used were the Composite Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Variance (MSV), and Average Shared Variance (ASV) (Hair et al., 2014). The results show that CR>0.7, AVE>0.5, MSV<AVE and ASV<AVE, are appropriate for one-dimensionality and convergent validity (Hair et al., 2014). Additionally, the results reveal that square roots of the AVE measures are superior to all the correlations among all the constructs, which confirms discriminant validity (Fornell & Larcker, 1981). Therefore, all the values registered in Table 1 are considered adequate.

Table 1. Measurement of constructs

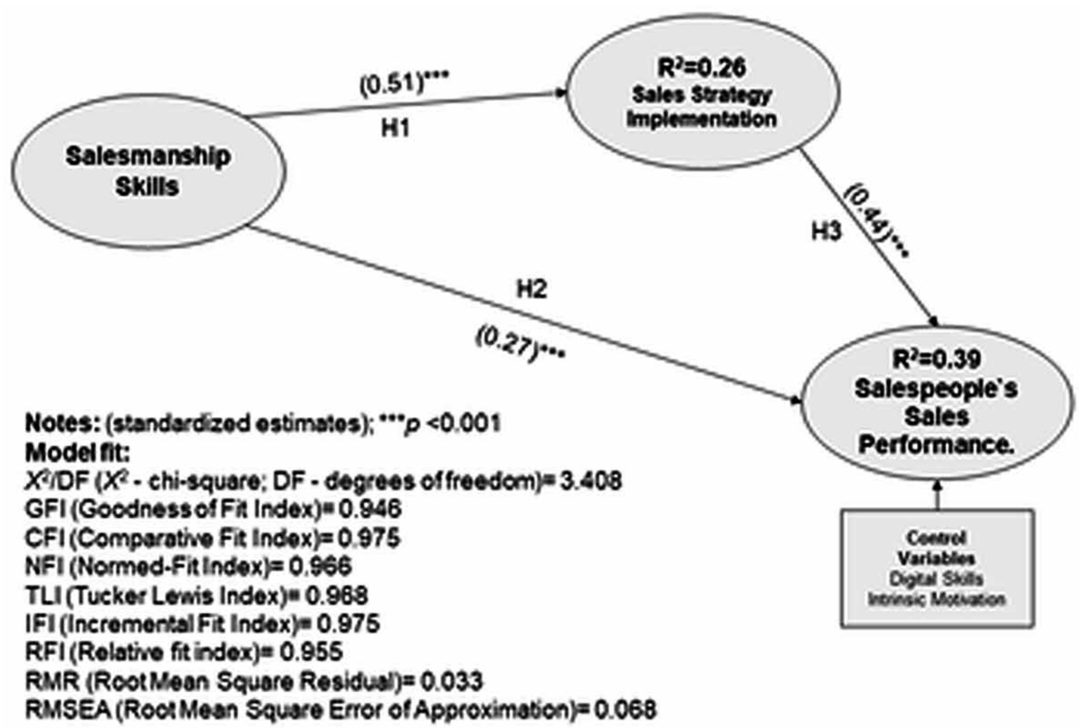
Constructs/Items	Mean	Std. Dev.	Fact. Load.	KMO	Av. Var. Ext.	α	CR	AVE	MSV	ASV	1	2	3
Sales strategy implementation – (Nowlin et al., 2018).													
Salesperson's selling strategy was effectively implemented.	3.73	0.873	0.858	0.852	86.697	0.949	0.950	0.825	0.336	0.300	***0.908***		
Salesperson's selling strategy was generally considered a success.	3.69	0.889	0.891										
Personally, I think that my selling strategy was a success.	3.64	0.905	0.863										
The selling strategy was considered a success in my department/area.	3.66	0.915	0.847										
Salesmanship skills - (Rentz et al., 2002)													
Skills to prospect for customers.	3.97	0.909	0.688	0.723	61.027	0.784	0.784	0.551	0.264	0.254	0.514	***0.742***	
Skills to qualify prospects.	3.82	0.902	0.835										
Skills to close the sale.	3.52	1.065	0.804										
Skills to present a sales message.	4.09	0.867	0.562										
Salespeople`s Sales Performance - (Behrman & Perrault 1982)													
Salesperson's ability to generate revenue.	3.64	0.882	0.846	0.891	78.009	0.920	0.929	0.725	0.336	0.290	0.580	0.494	***0.851***
Salesperson's ability to quickly generate sales of new company products (properties).	3.51	0.931	0.838										
Salesperson's ability to produce higher market share for company.	3.67	0.889	0.823										
Salesperson's ability to exceed sales goals and objectives.	3.55	0.922	0.838										
Salesperson's ability to identify and sell to major customers.	3.71	0.874	0.834										

Kaiser Normalization Varimax rotation method
Kasier-Meyer-Olkin measure of sampling adequacy (KMO)= 0.910
Bartlett's test sig. 0.000.
Total Explained Variance: 75.949%
All factor loadings are significant at $P < 0.001$
α – Cronbach's alpha or coefficient alpha
CR - Composite Reliability
AVE - Average Variance Extracted
MSV - Maximum Shared Variance
ASV - Average Shared Variance
1 - Sales strategy implementation
2 - Salesmanship skills
3 - Salespeople`s Sales Performance
Diagonal elements (bold) illustrate the square root of average variance extracted (AVE)

Structural Model and Hypothesis Testing

The results of the structural equation model showed that the proposed structural model fits well with the data, according to the usual indicators (X^2=173,805; DF=51; X^2/DF=3.408; GFI=0.946; CFI=0.975; NFI=0.966; TLI=0.968; IFI=0.975; RFI=0.955; RMR= 0.033; RMSEA=0.068) (Hair et al., 2014; Kline, 2016). In addition, the degrees of explanatory power of the respective predictors (R^2) exceed the

Figure 1. Results of structural equation modeling.



minimum recommended value R^2 >0.1 (Falk & Miller, 1992), as seen on Figure 1.

In Figure 1, the hypotheses formulated correspond to the structural or causal paths represented in the structural model (Byrne, 2016). Thus, the hypotheses are empirically tested through the significance of these trajectories/paths (Byrne, 2016). The results reveal that in Covid19 context (H1), Salesmanship Skills had a positive and significant effect on the Sales Performance of the Salesperson (β=0.744; p<0.001). Regarding (H2), the Salesmanship Skills shows a positive and significant effect on Sales Performance of the Salesperson (β=0.342; p<0.001). Moreover, the hypothesis (H3) confirms that in Covid19 context, Sales Strategy Implementation had a positive and significant effect on Sales Performance of the Salesperson (β=0.395; p<0.001). Therefore, the model and all the hypotheses (H1, H2 and H3) were statistically supported.

Control variables effects

STATA software was used to apply the GLM as suggested by Williams (2006). The model below was used (Williams, 2006):

$$P\left(Y_1 > j\right) = \frac{\exp\left(\alpha_j X1_i \beta 1 + X2_i \beta 2 + X3_i \beta 3\right)}{1 + \left\{\exp\left(\alpha + X1_i \beta 1 + X2_i \beta 2 + X3_i \beta 3\right)\right\}}; j = 1, 2, \ldots, M - 1$$

Where M is the number of categories of the ordinal dependent variable. From the above, it can be determined that score change that Y will take on each of the values 1.

However, it should be noted that all the steps suggested by Williams (2006) and Williams (2016) were followed. Table 2 shows results of the GLM using Stata.

Table 2. Results of the Generalized Logit Model Using Stata

Control Variables	Observed Variables of Salespeople's Sales Performance				
	OV1	OV2	OV3	OV4	OV5
Digital skills	0.4475***	0.6051***	0.4805***	0.6494***	0.4922***
Intrinsic motivation	1.0389***	0.8655***	0.9654***	1.0901***	1.0901***
_cons_1 _cons_2 _cons_3 _cons_4	-1.803654*** -3.45172*** -5.740391*** -8.115082***	-2.060117*** -3.794138*** -5.883509*** -8.150242***	-1.249786* -3.363292*** -5.493061*** -7.775865***	-3.040021*** -4.591285*** -7.033902*** -9.235288***	-2.552037* -3.190381*** -5.662952*** -11.47714***

*Sig. 90%; ***Sig. 99%
OV1 - Salesperson's ability to generate revenue.
OV2 - Salesperson's ability to quickly generate sales of new company products (properties).
OV3 - Salesperson's ability to produce higher market share for company.
OV4 - Salesperson's ability to exceed sales goals and objectives.
OV5 - Salesperson's ability to identify and sell to major customers.

The results reveal that digital skills and intrinsic motivation, during the Covid19, affected positively and significantly all the observed items of Salespeople`s Sales Performance. With special emphasis on the intrinsic motivation, where in the item OV1 (1.0389***), OV4 (1.0901***) and OV5 (1.0901***) the coefficients registered values higher than1 (Williams, 2006). These results seem to indicate that the digital skills and intrinsic motivation of salespersons during Covid19 pandemic impacted positively the Salespeople`s Sales Performance.

SOLUTIONS AND RECOMMENDATIONS

The Covid-19 pandemic changed the normal operation of companies (Ayodeji-Ogundiran et al., 2021; Chong & Phillips, 2021; Donthu & Gustafsson, 2020). Specifically, affected the "traditional" sales and negotiation process where salespersons were an active part (Nanda et al., 2021). Moreover, in this Covid19 context, the importance of the customer relationship management process was increased (Kang et al., 2021), as the uncertainty environment generated by the pandemic generated a lot of inquiry among the customers that were oriented toward the companies. Thus, communicating with customers and prospects, managing, and maintaining leads and customers were very important tasks during Covid 19 times. In this scenario of uncertainty and crisis/disruption an additional ability from salesperson was necessary to face the new challenges and create opportunities (Epler & Leach, 2021).

This study analysed the impact of salesmanship skills during the COVID-19 crisis, specifically on the real estate market. Salesmanship is the level of salesperson skills that are required to persuade customers to buy or to do something (Rentz et al., 2002). The findings of this study demonstrate that the salesmanship skills are an important resource in highly disruptive environments, such as Covid19. This suggests that salesmanship skills can benefit salespersons, allowing them to mitigate the negative effect of disruptive environments (such as Covid19), leveraging the sales strategy implementation and maintain a positive performance.

The Covid19 pandemic forced salespersons and customers to remotely engage in digital tools (Rangarajan et al., 2021). However, in online platforms the salesmanship skills will continue to be needed. The results demonstrate that the salespersons still need to have excellent communication and persuasion skills to sell products/services. Also, salesmanship is an art of communication between a salesperson and a customer (Rentz et al., 2002) which in disruption environments plays an important role.

Salespersons are not only fighting to respond to Covid19's challenges, but they are also learning and preparing for the next contextual disruption. Based on the results, the present research recommends the use of resources (salesmanship skills) and strategies (sales strategies) to deal with future uncertainties.

Regarding the control variables digital skills and intrinsic motivation of the salespersons they seem to influence positively the sales performance of salespersons, during this period of economic disruption. As expected, digital skills were very important as a way of responding and integrating employees to the conditions experienced during Covid19 (Nanda et al., 2021; Rangarajan et al., 2021). Likewise, the intrinsic motivation was considered a significant factor in the management of the daily adversities of salespeople's life (Guenzi & Nijssen, 2021; Tønnessen et al., 2021).

This article offers several important theoretical contributions. First, the present research reveals that salesmanship skills, in a crisis/disruption situation, is a relevant resource for the sales strategy implementation and consequent salespeople performance. In fact, in periods of uncertainty and crisis/disruption, salesperson role is challenged and strategic capabilities are required to improve performance (Nowlin et al., 2018). Also, salesperson resilience (Luu, 2021) and ability to effectively use available resources are required to face new challenges and create opportunities (Epler & Leach, 2021).

First, this study adds knowledge to the sales literature, suggesting that the construct salesmanship skill is an antecedent of sales strategy implementation and salesperson performance.

Second, this research brings the concept of salesmanship skill (which is traditionally addressed in personal selling and face-to-face communication - Rentz et al., 2002) to a new reality about hybrid sales processes (online and offline interactions), promoted by the Covid19 context. The characteristics of the salesmanship skill enable companies to adopt a multichannel retail business strategy integrating physical and digital stores (Nanda et al., 2021). This research adds a new theoretical understanding about salesmanship skills, integrating this concept in the sales process hybridization. Thus, the sales-influencing tactics, like communication and persuasion, are important for converting leads to sales (Pöyry et al., 2017).

Third, this research reinforces the role of salesperson in building long-term customer relationships (Koponen et al., 2019). The results show that salespersons can play an active role on the implementation of the sales strategy with a positive effect on the sales performance of the salesperson (Inyang & Jaramillo, 2020; Terho et al., 2015).

In times of crisis and disruption, salesmanship skills are very important for the sales strategy implementation and for converting leads to profitable sales. Specifically, the ability to prospect for customers and qualify potential customers (Vieira & Claro, 2020), the capacity to communicate and persuade potential customers (Pöyry et al., 2017), the proactiveness of salespersons to find customers (Mallin et al., 2014), and the ability to close the deal at the most profitable moment (Koponen et al., 2019).

Fourth, additional research about control variables corroborates the importance of the salespeople`s intrinsic motivation during periods of crisis and disruption (Guenzi & Nijssen, 2021; Tønnessen et al., 2021). Moreover, this research also showed that digital skills were important for the salespeople, considering the acceleration of digital transformation experienced during the Covid19 (Rangarajan et al., 2021).

The findings of this study have several managerial implications for salespeople who are in a highly demanding job, often stigmatized, misunderstood and subject to rapidly changing environments. The findings suggest that in turbulent times, salesmanship skill continues to impact sales strategy implementation and salesperson performance. In essence, the salesmanship skill is a concept, characterized by the power or ability to influence customer to buy at a mutual profit occasion (Rentz et al., 2002). In this case, in times of disruption, it is evident that more proactive and direct salesperson approach can effectively make a fruitful difference in the salesperson-customer interaction. Nowlin et al. (2018) suggest a strong salesperson role and strategic capabilities in complicated times. Thus, the study suggests that salespeople should invest in their salesmanship skill to prospect and qualify customers, communicate, persuade, and enhance the ability to close sales at a mutually profitable time, regardless of channel used (online versus offline). A salesperson never has an interaction moment like another because each customer has their idiosyncrasies. Moreover, mistakes and obstacles are inevitable, especially in difficult times. So, this salesmanship skill focused on prospecting, communication and persuasion has a great operational firepower. For instance, about prospecting for customers, salespeople can identify potential customers for the company, in order to develop outbound and inbound strategies to attract leads. Regarding communication and persuasion, salespersons must know very well the products and services they are selling, as well as applying good negotiation practices. Other practices could include expand the dialogue/message to specific customers, demonstrate flexibility during the negotiation process, provide multichannel interaction with customers, actively listen to customers, presentation of effective proposals and satisfying the interests of the parties with mutual benefits.

Since Covid19 accelerated the digital transformation (Nanda et al., 2021), the study suggests the training and digital presence of salespeople during multichannel interaction between salesperson and customer. Furthermore, it is important to create valuable content and useful information in digital contact with customers.

The salespeople' intrinsic motivation is a process that explains the energy, direction, and persistence of a salesperson's effort to achieve goals (Guenzi & Nijssen, 2021), even in the face of Covid19 adversity. Thus, salespeople must focus on their strengths and rethink priorities based on optimization and efficiency to perform their tasks. Salespeople should seek personal satisfaction enrolling in opportunities to self-development in order to attain their full potential.

Second, this study has practical implications for managers and companies. Especially for micro and small companies, precisely because these companies normally based their marketing strategies on sales and the role of salespersons. Managers should consider salespeople an important part of the business strategy and train their salespeople on salesmanship skill. Epler and Leach (2021) suggest salesperson recruitment and hiring practices that focus on salesperson creativity, learning, and determination. Since the main feature of salesmanship is customer-salesperson interaction (Rentz et al., 2002), this approach implies a creative, mutual and constant learning, immediate and interactive relationship between customer and salesperson. The study also encourages companies to invest in its digital presence in the future as the Covid19 phenomenon impacted all the aspects of human life. Still from the perspective of companies, the study also suggests the need to invest in salesperson role-oriented contingency plans for future disruptions. Consequently, companies should leverage Covid19's experience to review their motivation strategies and prepare for future crisis. For instance, using new analytic tools and methodological techniques in order to simulate the adoption of marketing actions in scenarios of crisis could be interesting.

Third, the study has implications for universities. This research suggests that universities should develop salesmanship skill programs, mainly because it is estimated that disruptive contexts will be more frequent in the future. However, salesmanship skill programs should not only be applied in economics, management or marketing, but also in other areas. For instance, lawyers, teachers, politicians, engineers, among others, often need to practice the art of influencing or persuading people.

FUTURE RESEARCH DIRECTIONS

This study has some noteworthy limitations. Although attempts have been made to ensure a high-quality sample, the study is based on a sample restricted to Portuguese and real estate salespeople. Thus, its findings should be used with caution.

This study could be applied to other geographies and industries. Moreover, further contextual insights can be gained through comparative analyses, for instance, a study that compares sales strategy implementation of salespersons in a B2B and B2C context.

The present study only addresses salesmanship skills, but Rentz et al. (2002) propose two more components of sales skills, namely interpersonal skills and technical skills. Thus, future studies can address these two dimensions in a crisis/disruption context.

Future research, in a post-pandemic stage, may test the scars left by Covid19 in the role of salespersons. For example, the introduction of contingency plans in sales strategies, which often were previously disregard.

Finally, this research suggests that digital skills and the intrinsic motivation of the salespeople are two factors that deserve more detailed studies in the context of crisis. For instance, studies on the impact of digital skills on sales processes and the role of intrinsic motivation of the salespeople in their different tasks (prospecting, presenting products/services, negotiation, among others).

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KEY TERMS AND DEFINITIONS

COVID-19: Viral respiratory disease, first identified in 2019, potentially serious and highly transmissible. In 2020, the World Health Organization declared Covid19 as a global pandemic.

Customer: Potential buyer or user of an individual's or organization's products and/or services.

Real Estate: Industry engaged in the purchase, sale, or lease of real estate, generally as an intermediary.

Sales Performance: Action and consequence of effectively meeting sales objectives.

Sales Skills: Salesperson's ability to generate results within sales goals.

Sales Strategy: Set of people, processes and actions of a company that aim to prospect and win customers, generate sales, and increase business revenue.

Salesperson: Sales professional responsible for exchanging a product or service for a certain value.

Chapter 14
Social Reactions to the Pandemic:
Rising Interest in Pandemic Movies

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ABSTRACT

Coronavirus disease (COVID-19) has become a global health and economic crisis and has had many impacts on daily life. This study investigates the effect of the pandemic on movie viewing preferences in Turkey. Using Google Trends data, it handles trends towards epidemic movies with a quantitative analysis method. Google Trends data is a valuable source of information for examining quarantine's psychological, sociological, and health effects. In this way, it can be determined which media preferences the society, which wants to get rid of the epidemic's concerns, is turning to. In this study, the search was made on IMDb with the keyword "contagion," and movies with an IMDb rating above 6.0 among the listed pandemic movies were examined as sampling. The interest in epidemic films determined three months before and after the epidemic's start was compared. This study suggests an increase in watching pandemic movies in Turkey in response to the initial phase of the COVID-19 pandemic.

INTRODUCTION

COVID-19 pandemic is one of the greatest crises humanity has faced in recent history. The Chinese city of Wuhan became the center of a virus-borne pandemic in December 2019. The COVID-19 pandemic in Turkey that started in March 2020 has prompted governments worldwide to take unequaled measures to contain the virus's spread. Such as social distancing, hygiene practices, and quarantine to reduce the spread of the virus. COVID-19 outbreak continued in Turkey and brought about a variety of effects on daily life. Research shows that such action is met in the social field as watching films or TV series, especially in the early stages of the pandemic (Dixit, 2020; Reis Filho, 2020; Kar et al., 2020).

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COVID-19 caused restrictions in Turkey. To reduce the pace of the pandemic, many public events, including concerts, theaters, cinemas and sports competitions, schools, and universities, have been closed, and government working hours have been reduced in some provinces. While restrictions can help contain the virus's spread, significant psychological damage to population well-being are observed. Data generated through online internet searches provide a potential source of information about the media content, which concerned people resorted to alleviate fear and anxiety. Our use of Google Trends to evaluate quarantine's health, sociological, and psychological effects has important policy implications. Evidence that the media's information about the pandemic increased significantly in the search intensity of the content related to the pandemic shows that people's mental health was negatively affected during this period. Using different methods to assess the causal effects of fear in society, it is found a significant increase in anxiety and boredom observed by search intensity. It shows that the media preferences arising from the loneliness, anxiety, and sadness felt by the quarantine can be seriously affected by the health status. The limited social interaction of prolonged quarantine can negatively impact emotionally, psychologically, and sociologically.

Watching movies or series during the pandemic can turn into a situation where both the cinema industry and society benefit. The most important message of pandemic movies, series, and documentaries is to be hopeful and unity as a society. The loneliness felt during the pandemic creates the need for unity. This message helps us control our anxiety and fears. These productions impose on us both the responsibility of protecting our own life or our loved ones who are sensitive to the virus and hope that all humanity will be united with each other. According to Ketsuwan, the sense of learning and control that movies create, anxiety and fear may decrease (2021). Also, watching productions about the pandemic helps visualize the process. These movies or series become a source of ideas for viewers.

The development of medical science -and especially developments in the cure of infectious diseases- in a roughly analogous fashion to the art of cinema shows that the link between art and science shows meaning. This is particularly considerable today. As evidenced in part pending the recent anthrax pandemic, public senses -and reactions- are remarkably influenced by their views on scientific facts presented by the media (Pappas et al., 2003, p. 940). On the other hand, perhaps one of the more critical points concerns this pandemic process's post-effects. Researches show that (Brodeur et al., 2020; Gennaro Mazza et al., 2020; Hyland, 2020; Albay et al., 2020) "post-traumatic stress disorder" and "depression" are found in people after the pandemic. In the films about pandemics, generally, people's negative images and feelings after the disaster are not mentioned. Thus, people feed on the hope that everything will return to normal when this process is over. Such hope is the essential part that the mind needs for a disaster scenario. Therefore, people who turn to productions related to the pandemic are looking for hope. The frequency of searches, especially in the first stages of the pandemic, proves this case.

In Turkey, there is a lack of published research on factors affecting public interest in COVID-19. In order to eliminate this deficiency, this study investigates whether the interest in pandemic movies increased during the pandemic period. The interest in pandemic-themed movies was analyzed from Google Trends data from December 11, 2019, to June 11, 2020, centered on the first COVID-19 case in Turkey. The number of Google searches such as "pandemic movies" and selected films increased rapidly and changed throughout the world between December and June. This article aims to evaluate whether it is possible to correlate responses to COVID-19 with digital traces. In particular, it will determine the usefulness of looking at Google searches when examining social group responses to this outbreak.

This research is based on Google Trends because of the widespread usage of internet. There were 62.07 million internet users in Turkey in January 2020 (Kemp, 2020). Google is the most popular search engine (Digital 2021 Global Overview Report, 2021).

Based on Google Trends data and search films of the quarantine process in Turkey, this study is testing whether it has opened the way to changes in preferences. As is known, much research has been done on Google Trends, including health-related subjects. The COVID-19 pandemic has revealed a huge impact worldwide, with millions of people searching for health information online. Therefore, web search queries on Google Trends during the pandemic make it a precious source of information about health trends. Google Trends is a tool that analyzes the notional relevance or popularity of a search term, and it is the highest popularity for a selected period of the search engine Google is assumed. Google Trends is a public data resource of real-time internet search models and has previously been used for research in various fields. In this way, it is aimed to use Google Trends data to research people's concerns in pandemics and what media content they would like to access to address this concern.

The search was made on IMDb with the keyword "contagion" and movies with an IMDb rating above 6.0 among the listed pandemic movies were selected as sampling. The names of these films *Contagion* (Steven Soderbergh, 2011, IMDb score 6.7), *28 Weeks Later* (Juan Carlos Fresnadillo, 200y, IMDb score 7.0), *Outbreak* (Wolfgang Petersen, 1995, IMDb score 6.6), *Flu* (Kim Sung-su, 2013, IMDb score 6.6), *World War Z* (Marc Forster, 2013, IMDb score 7.0), *Train to Busan* (Yeon Sang-ho, 2016, IMDb score 7.6), *28 Days Later* (Danny Boyle, 2002, IMDb score 7.6).

BACKROUND

Cinema and COVID-19

Telling stories helps to adapt by organizing the collaborative system in hunter-gatherer societies. Thus, storytelling provides a way that presenting group content can individually symbolize just as Hunter-gatherer stories coordinate social behavior (Smith et al., 2017, p. 3). Like experiences, such as a verbal story, a novel, or a film, the transparent characteristic of storytelling proposal is a highly tried solution to the restrictions on information acquisition. Firstly, narrative operating requires no minimal energy, as it does not require physical effort. Second, when the narrative squeezes time through three points, the viewer receives more information than directly owing their time and energy to experience. Third, participants do not have to accept physical and social risks, representing narrative experience (Scalise-Sugiyama, 2001, p. 228).

All forms of popular culture in a modern consumer society develop popular cognizance of disease outbreaks. It externalizes a complex mutual effect between many producers and consumers of meaning (Tomes, 2002, p. 626). Cinema is a leading art of the 20th century, and very progress was made in infectious diseases in the 20th century. The exploration and broad use of antibiotics encountered the emergence and spread of "talking pictures." The early stages of cinema may admire the pioneers of infectious diseases and the fascination with pandemic's ruining consequences. For example, *The Story of Louis Pasteur* (1936, William Dieterle) was an artistically and commercially thriving repeating of Pasteur's struggle to pasteurize and vaccinate sheep against anthrax (Pappas et al., 2003, pp. 939-940). Since the occurrence of "coming plague" scenarios in epidemiological and popular medical discourse in the early 1990s, Hollywood films have become central to establishing epidemiologists as cultural heroes (Lynteris, 2016, p. 37). Infectious diseases from all medical specialties are essential to provide the necessary tension to the cinema (Pappas et al., 2003, p. 939).

A pandemic movie can explain the pandemic narration and form created following the genre codes and rules. Most narratives in films about the pandemic are based on their infected illnesses. It harbors the infected victim, and the disease becomes a pandemic. After the movie characters are connected to the infection source, they become a problem and embark on a dangerous journey to find a cure. Meanwhile, a team of doctors and scientists will do some tests to determine what the disease is and try to find a cure or a vaccine to overcome the disease. In the narratives surrounding the pandemic movies, its victim can be seen suffering and eventually dying. The pandemic causes a chaotic situation where society faces a deadlock situation; people who are trying to survive the pandemic experience a state of fear and panic. The Horror genre, to which the pandemic genre is analogous, shares a similar sense of the definition, while this feeling is more of a supernatural implication. Simultaneously, the pandemic films show a sense of originality (Shafiee & Bidin, 2016, pp. 3-4).

On the other hand, Zombie films in the literature are primarily associated with the pandemic. In general, the purpose of pandemic and zombie films is to offer a different understanding of the pandemic. With the horror genre's help, at pandemic is accelerated and enlarged so that its subversive abilities become fully can see. The slow spread of the viral epidemic becomes hyper-fast as the immortal carriers of the zombie transmission still search for those who are not infected. This acceleration of pandemic violence allows him to investigate the (imaginary) disease that the zombie movie represents with a specific political context and, in connection with it, link it to its various genres (Höglund, 2017, p. 2).

In the 20th century, the relationship between psychotherapy and film profoundly impacted reality and how perceive ourselves. It is an important intersection that Sigmund Freud started the modern age of psychotherapy and that Edison's invention of the "motion Picture" occurred in the last years of the 19th century (Geller, 2020, p. 1424). Christie Eppler and Jen Hutchings' article "The Use of Cinematherapy to Illustrate Systemic Resilience" centers on cinema therapy to support the power of character; and endurance valued by all convincing therapists. Current literature shows that watching a movie can significantly impact the audience (2020, p. 2).

Pending a pandemic, more people than usual spend time at home seeking answers to alarming issues they read or see in the news on TV (Ian Freckelton, 2020, p. 2). The worries and fears created by the pandemic can make people more independent, especially online. Fear of being harmed by the COVID-19 pandemic can be overcome by factors such as literary traditions, movie depictions, and computer game metaphors (Ian Freckelton, 2020, pp. 9-10). At the beginning of the pandemic, several movies watched in the US on Netflix on March 14, 2020, climbed to 5. Until recently, the most-watched movies were primarily seen as members of other genres -horror, science fiction, thriller, etc., or combinations of these. During the COVID-19 pandemic and in contemporary entertainment media, labels such as "pandemic movies" increased. The coming months and years will undoubtedly see productions tackling the pandemic and tackling the emerging genre. These films tackle the dilemma between the infected and the healthy and address the threat of infection that drives the narrative (Slugan, 2021, p. 2).

As collectively enter an uncertain future shaped by COVID-19, some of the pandemic movies will not only help share a moment but also hope (Derothy, 2020, p. 2). "Pandemic movies" is the most frequently searched movie genre of January 1, 2020. "Pandemic" is also the official WHO term for identifying the current COVID-19 outbreak (Slugan, 2021, p. 5). Films about the "pandemic" show how the COVID-19 pandemic categorizes and reorganizes how to think about a series of movies. It is retrospectively more prominent in a world struggling with the pandemic than any other species to create a category that addresses our current concerns. The COVID-19 outbreak has brought the label "pandemic movies" so significant that the classification created in this way has made it a genre (Slugan, 2021, p. 4).

Scrivner et al. studied pandemic, horror, and pandemic films, including relevant current history and related media fiction, to be more prepared for outbreaks and test whether psychological resilience is related are eye-opening. They established that fans of horror films fan more resistance during the pandemic. Also that fans of "prepper" genres (alien-invasion, apocalyptic, and zombie films) are both more endurance and forwardness (2021, p. 2). Therefore, these results are coherent with the hypothesis that pandemic movies allow viewers to apply efficient coping strategies useful in real-world status. Gross et al. are point to experiencing negative emotions in a safe environment through film can help individuals develop fear coping strategies and cope more calmly with problems that create fear in real life (Gross, 1998; Shurick et al., 2012).

Many films have portrayed the devastating effects of epidemics, especially pandemics, on society (Ian Freckelton, 2020, p. 3). Pandemic movies allow viewers to gain vital information that is hard or unsafe to encounter in the real world. For example, how do others behave in the face of a pandemic? Is there any chance that the pandemic will lead to collaborative or egoistic behavior in others? How can the changing sociological structure of a pandemic world be learned? What happens to the world when the institutions that act as the cornerstones of everyday existence no longer function as ordinary? When an outbreak occurs, this information can be invaluable (Scrivner et al., 2021, p. 2). Films can offer a way of externalizing problems, letting them be viewed with a different perspective, and easing exploring of other coping choices (Orchowski et al., 2006). Narratives about the "next pandemic" can keep humanity pleasant, and the world can emerge from a state of pathogenic imbalance only if people give up on them. In other words, people can only survive if they restrain themselves in a preventive way against what is inevitably imagined as the "impending plague." It takes part in the internalization process as an ontological requirement for the 21st-century epidemiologist to find his space in the legendary pantheon of cultural heroes (Lynteris, 2016, p. 50).

Watching a pandemic movie can also be a means of obtaining information. With a tendency to collect more information about hazardous phenomena, sickly interested individuals can accumulate a broader range of knowledge and emotional coping strategies helpful in dangerous status. Through simulations, people can learn how to deal with hazardous situations and control their emotions (Scrivner et al., 2021, p. 3). Also, according to Smith et al., "it is not enough for a person to know how to behave when faced with a problem; individuals need to know how to behave in others. At this point, the importance of storytelling becomes apparent. Publishing social and collaborative norms to coordinate group behavior plays a significant role in the evolution of human cooperation" (2017, p. 2).

Disease narratives serve as personal explanations or ideological signals of cultural concerns. They also create potentially lucrative profitable forms of news and entertainment (Tomes, 2002, p. 626). As a human struggling with the pandemic, actors grapple with situations similar to real-life events. When the movie ends with a cheerful ending, finding a successful vaccine can help viewers realize and manipulate the truth. The movie *Contagion*, for example, undoubtedly presents what has become a resounding catalog of varieties of pandemic experiences with COVID-19. *Contagion* is the most popular pandemic movie of the early coronavirus instant because it offers such a clear seeing of how a pandemic narrative is played out (Moore, 2020, p. 2). Some of the trends in infectious diseases in movies are later accepted by the public as facts. They, therefore, act as ingredients of public responses to the feasible future infectious pandemic and possibly to government policies (Pappas et al., 2003, p. 939). For many who watched outbreak movies like *Contagion*, the film's scientific details made COVID-19 feels like a real-life result or an adaptation of the imaginary contagion pandemic. Pandemic narratives like these dictate the logic of too buried cultural and social structures, reflecting the cultures that have settled through the ages (Moore, 2020, p. 3).

As Wald points out, Contagion [concept, not the movie] is an epidemiological fact. The concept has a long history of expressing how beliefs travel in social interactions. It is also a fundamental concept in religion and society research. The concept of contagion has evolved during the twentieth century through microbes and behaviors about social change. Infectious disease not only causes destruction but also draws attention to the circulation of microbes. The interactions that make us sick are very effective in building communities. The emergence of the disease dramatizes the basic narrative of humanity's dilemma (Wald, 2008, p. 2).

On the other hand, watching more pandemic movies may raise anxiety and psychological discomfort for some people. The probable mechanisms fundamental to the advantages (or detriments) of terrifying entertainment on psychological flexibility are a good road for future research (Scrivner et al., 2021, p. 5). Fear, anxiety, and paranoia can multiply pend the COVID-19 pandemic. In this case, it tends to be the product of shared cultural influences such as religious, literary, film and play, and personal and disposition factors, all of which can lead to emotional and irrational responses (Ian Freckelton, 2020, p. 1). Many depictions of infectious diseases in cinema are wrong. Many films contain extreme scientific inaccuracies, and outbreaks of unknown viruses of suspect origin that cause doomsday events serve to transfuse fear in public (Pappas et al., 2003, p. 942).

GOOGLE TRENDS

Twitter and Google Trends are the most popular infodemiology resources. They are thoroughly used in healthcare, medicine, and communications to analyze and predict diseases and pandemics. Also, other social media tools such as Facebook and Instagram show important and assuring results in analyzing users' online behavior models (Mavgarani & Gkillas, 2020, p. 7). Google Trends is a public data source of real-time internet search models and was previously used for health-related research (Arora et al., 2019; Gunnell et al., 2015; Nuti et al., 2014; Seifter et al., 2010). Google Trends provides an index look for density by topic over a specified period in a geographic area. The outside number of everyday research separates this ratio of simple looks for a given subject for that topic during that geographic area. This scales from 0 to 100; 100 here, most research for that subject and 0 indicate that a particular day does not have enough search volume for a specific term (Brodeur et al., 2020, pp. 3-4).
Google Trends define itself like this:

Google Trends provides access to a largely unfiltered sample of actual search requests made to Google. It's anonymized (no one is personally identified), categorized (determining the topic for a search query) and aggregated (grouped together). This allows us to display interest in a particular topic from around the globe or down to city-level geography. Each data point is divided by the total searches of the geography and time range it represents to compare relative popularity. The resulting numbers are then scaled on a range of 0 to 100 based on a topic's proportion to all searches on all topics. Different regions that show the same search interest for a term don't always have the same total search volumes.[1]

Using Google Trends data is more advantageous than survey data. First, the data capture the impact on Google Search users' behavior rather than a subgroup of respondents. Secondly, Google Trends data is not affected by bias such as the observer-prospect impact or interviewer prejudice. Third, Google Trends data is less affected by slight sample prejudice. However, Google Trends data has restrictions. One of them is that younger individuals are relatively more probably to use Google Search than older individuals (Brodeur et al., 2021, p. 7). However, Google Trends still makes excellent promise as a timely, robust and accurate surveillance system.

Google Trends provides a strict basis for quantitative analysis to monitor and predict COVID-19, as the study offered (Mavragani & Gkillas, 2020, p. 9). Data from Google Trends during the COVID-19 pandemic display individual concerns about the job (unemployment) and economic consequences of the worldwide pandemic. There is evidence of relative searches for mental distress (depression). Suicide-related searches increased after the lockdown start and began to decline as the number of COVID-19 deaths grew (Knipe et al., 2020, p. 8). Similar to these cases, interest in "pandemic movies" has increased to reach facts about pandemic that have not been reached yet.

The way followed in the next section of the article is as follows: in the method part, the data collection process and statistical analysis tools are mentioned. The discussion part presents the primary findings, limitations of this study and guides future studies.

METHODOLOGY

As mentioned, Google Trends is a public data source of real-time internet search models and has previously been used for research in various fields. In this way, it is purposed to use Google trend data to investigate pandemic people's concerns and what media content they would like to access to address this concern. Google Trends makes excellent promise as a timely, robust and accurate surveillance system. Google Trends provides a solid basis for quantitative analysis in movie viewing preferences, as in the research presented in this study.

In Turkey, there is a lack of published research on factors affecting public interest in COVID-19. The study aims to fill this gap. Based on the first official COVID-19 patients in Turkey, it was announced three months before the examination time interval and identified as three months later. Based on the date of the first official COVID-19 patients in Turkey, it announced three months before and three months after setting the time interval.

Using Google Trends for Turkey examines the level of people's interest in pandemic movies in this study. The search was made on IMDb with the keyword "contagion" and movies with an IMDb rating above 6.0 among the listed pandemic movies were selected as sampling. Reviewing Google Trends data from December 11, 2019, to June 11, 2020. Their Turkish names in Google Trends searched the films. These data were collected in April 2021. To fully assess how the pandemic affects film searching preferences, also need data before the crack begins.

Google does not provide information about search counts but does provide an indexed value to screen search action for a specific term/topic in a given period (Knipe et al., 2020, p. 3). The data is collected from Google Trends (trend.google.com), ensuring how many unlike words "hits" on Google on a given day. Remarkably, interest in these terms has increased. Therefore, this article aims to evaluate whether it is possible to correlate responses to COVID-19 with digital traces. In particular, when examining the reactions of social groups to this pandemic, the benefit of looking at Google searches will be determined.

The scrutiny on Google search is the widespread use of this search engine and the most visited website. Institutional Review Board approval is no longer required as publicly available data are reviewed. Finally, excluding of non-English search terms may limit the generalizability of the results in countries where English is not a sign language.

Before moving on to the results part, it is necessary to discuss the selected films for examination. For example, one of the movies questioned in the study is *Contagion* (2011). *Contagion* is a popular pandemic movie to talk about the film at this point. The film brings up the global pandemic issue as it shows that the pandemic is happening in different countries. Emphasizes that the virus travels the world with human activity and kills millions in less than a month. Lynteris points out that the *Contagion* is not a movie around a hero but instead consists of fragments of life stories linked together pending the pandemic. The current culture hero is collective rather than individual and consists of a trigon between the three female epidemiology (Lynteris 2016, p. 39). *28 Days Later* (2002) narrates the virus's spread with monkeys' release at a research center. *Train to Busan* (2016) describes the struggle of people affected by a devastating virus to survive on the train to Busan. *World War Z* (2013) is about the battle between humans and zombies. *Flu* (2013) tells about the struggle of humanity against an airborne virus. A deadly virus is prevented from spreading to the town in *Outbreak* (1995). *28 Weeks Later* (2007) is about a group attacked by the virus fleeing from mutant humans.

RESEARCH FINDINGS

The Google Trends data on Turkey showed that after the COVID-19 time, the Google search queries for pandemic films were significantly increased. All of the evaluated films searched at least one before the seeing first case with COVID-19. However, it was observed that there were more search queries after this period for these films (Table 1). The search queries of the movies given below are higher than before 11 March.

Figure 1. Google Trends search comparison of movie 28 Weeks Later before and after March 11

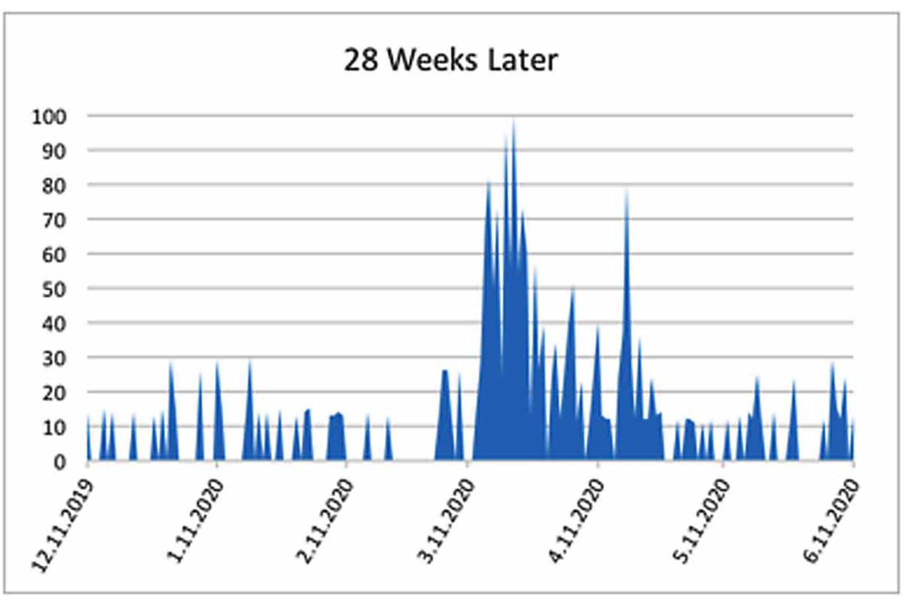

Figure 2. Google Trends search comparison of movie World War Z before and after March 11

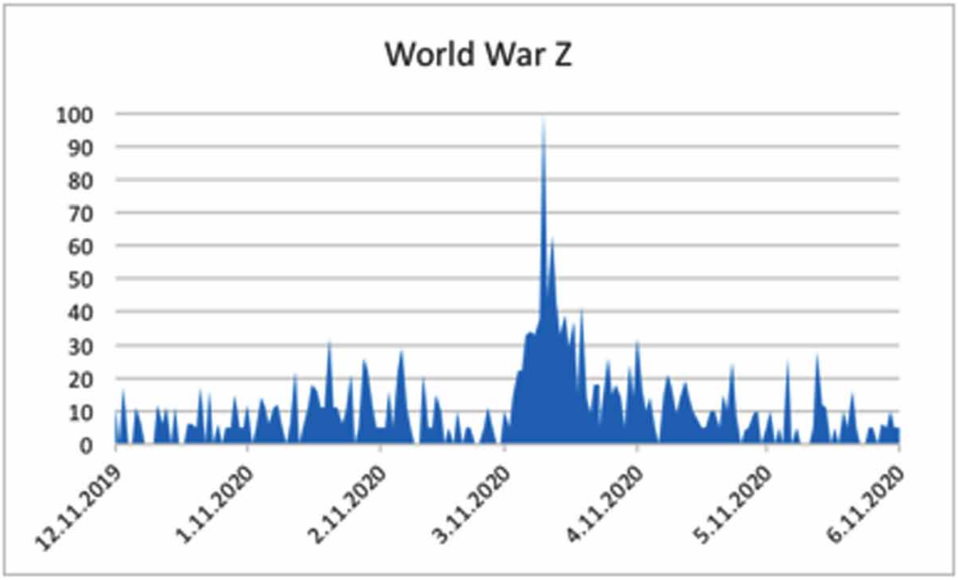

Figure 3. Google Trends search comparison of movie Train to Busan before and after March 11

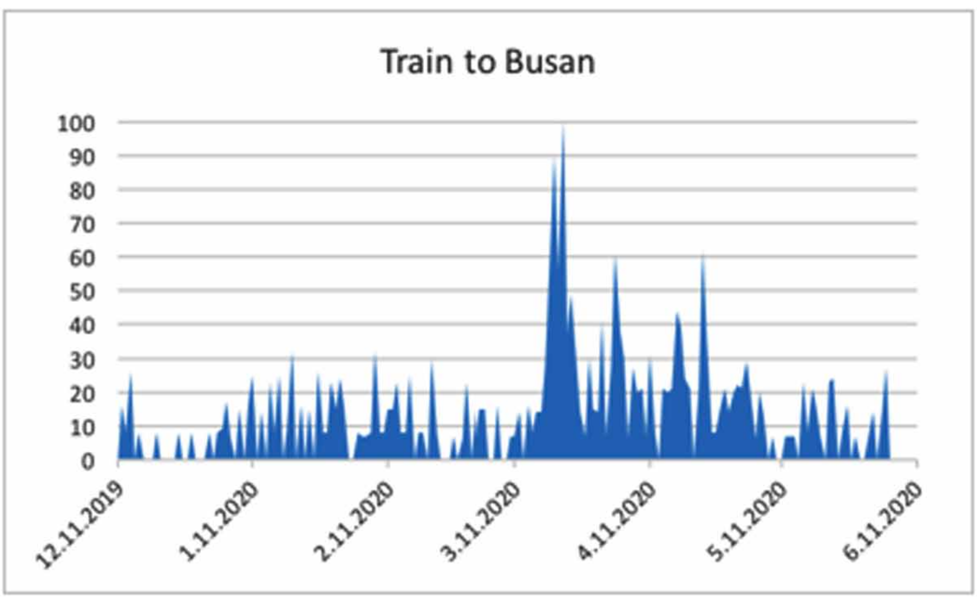

Figure 4. Google Trends search comparison of movie 28 Days Later before and after March 11

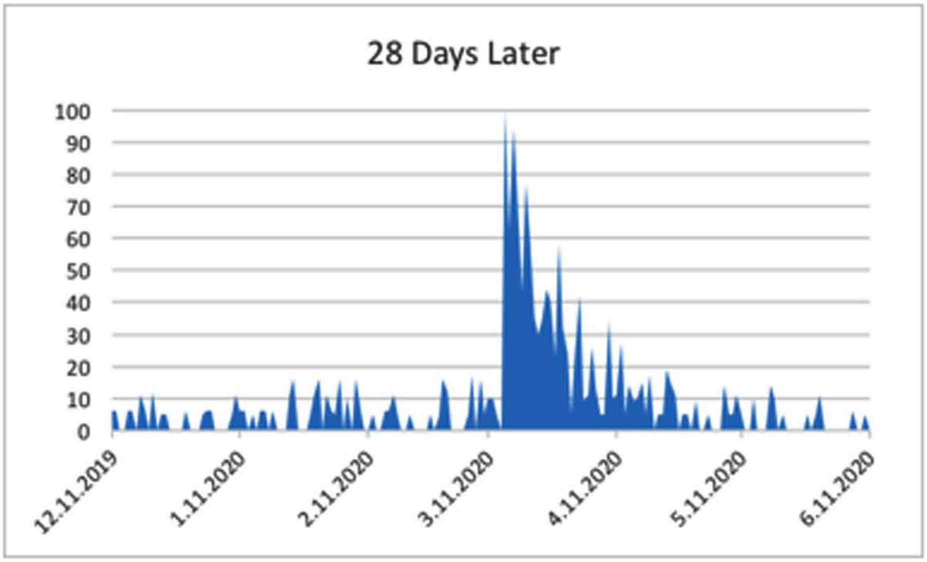

Figure 5. Google Trends search comparison of movie Contagion before and after March 11

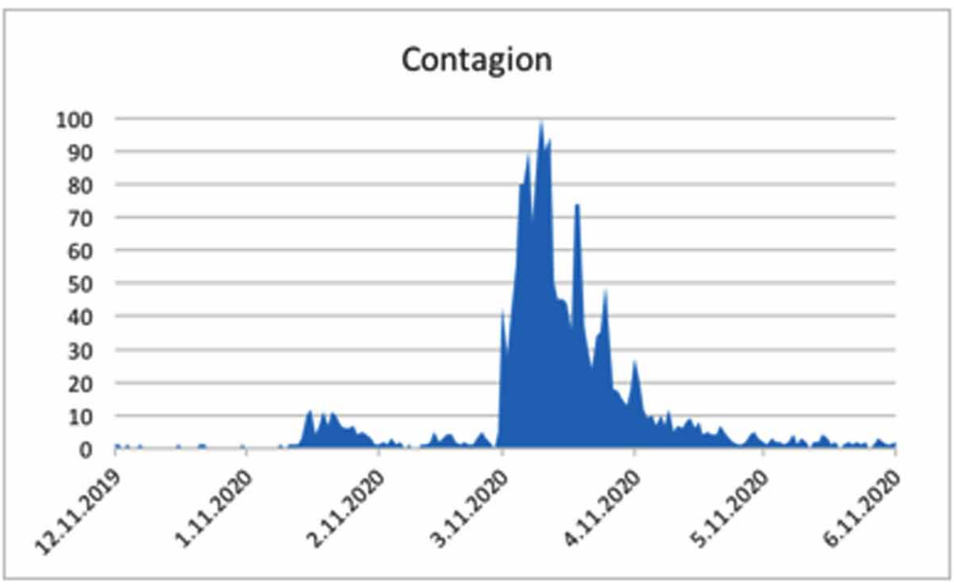

Figure 6. Google Trends search comparison of movie Outbreak before and after March 11

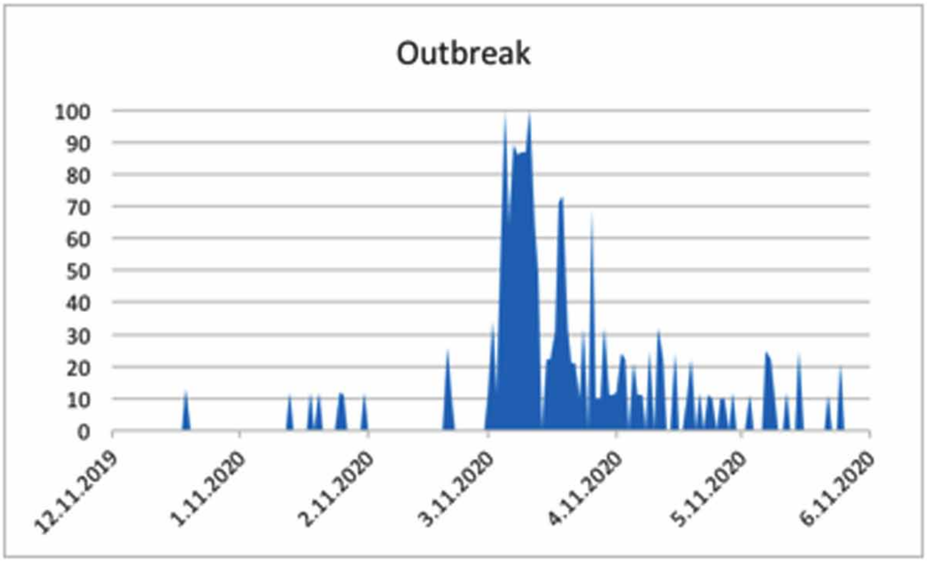

Figure 7. Google Trends search comparison of movie Flu before and after March 11

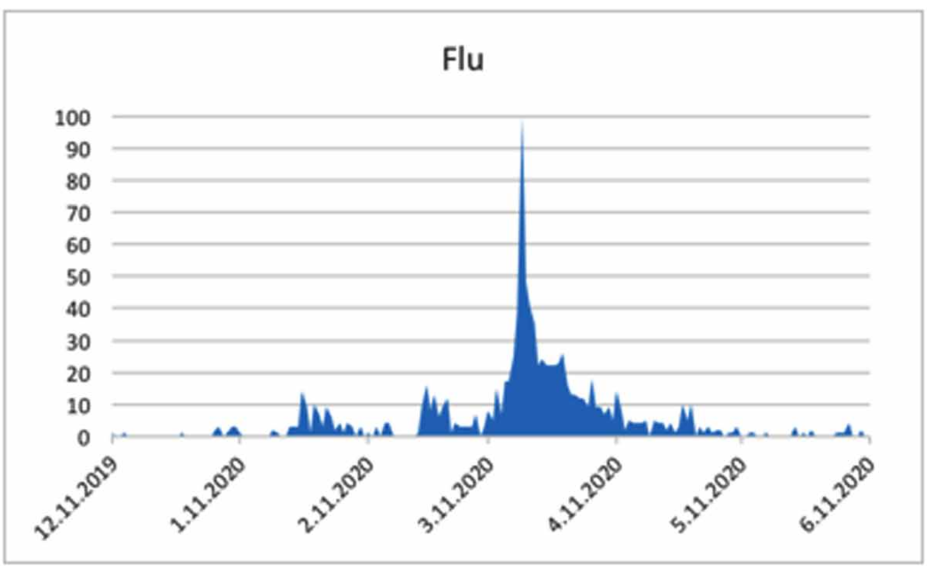

Table 1. The search number of films in Google Trends at after and before 11 march.

Films' Name	Before 11 March	After 11 March	p Value
28 Days Later	4 (0-17)	5 (0-100)	0.002
World War Z	6 (0-32)	10 (0-100)	0.003
Flu	1 (0-16)	3 (0-100)	<0.001
28 Weeks Later	0 (0-30)	12 (0-100)	<0.001
Contagion	1 (0-43)	5.5 (0-100)	<0.001
Outbreak	0 (0-26)	11 (0-100)	<0.001
Train to Busan	8 (0-32)	14 (0-100)	<0.001

The median search query was 11 (IQR: 0-100) for the film, *28 Weeks Later*. This search query value was 0 (IQR: 0-30) at before the COVID-19 in Turkey, and 12 (IQR: 0-100) after the COVID 19 (Mann-Whitney U: 2229.00; Z: -5.734; p:<0.001) (Figure 1). Also, this query was median 9 (IQR: 0-100) for World War Z. This query was median 6 (IQR: 0-32) at before the COVID-19, and 10 (IQR: 0-100) after the COVID 19 (Mann-Whitney U: 3184.50; Z: -2.930; p: 0.003) (Figure 2). For film, *Train to Busan*, similarly there was more search query after March 11 (median search query was 8 (IQR: 0-100), 8 (IQR: 0-32), and 14 (IQR: 0-100) at all period, before 11 March and after 11 March, respectively) (Mann-Whitney U: 2985.00; Z: -3.509; p:<0.001) (Figure 3). Also, the film, *28 Days Later* was searched median 5 (IQR:0-100) between 11 December to 11 June. It was 4 (IQR: 0-17) and 5 (IQR: 0-100) at before 11 March, and after 11 March, respectively. This rate statistically higher after 11 March than before (Mann-Whitney U: 3158.00; Z: -3.089; p: 0.002) (Figure 4). Similar the other three films, *Contagion, Outbreak*, and *Flu*, the search queries were 2 (0-100), 0 (0-100), and 2 (0-100) between 11 December to 11 June. This queries were 1 (0-43), 0 (0-26), and 1 (0-16) at before 11 March. After the 11 March, this rates were 5.5 (0-100), 11 (0-100), and 3 (0-100) respectively, and all three rates were higher at this period (For *Contagion* Mann-Whitney U: 1637.50; Z: -7.249; p:<0.001) (For *Outbreak* Mann-Whitney U: 2116.00; Z: -6.894; p:<0.001) (For *Flu* Mann-Whitney U: 2869.00; Z: -3.875; p:<0.001) (Figure 5, 6, and 7). Also, the distribution of analyzed searches in Turkey are seen in Figure 8.

SOLUTIONS AND RECOMMENDATIONS

This study provides some valuable evidence on the relationship between the COVID-19 outbreak and film-watching culture. Our study showed that online search query data could ensure enlightening data on the watching film of the population worldwide and, together with other studies, also founded increasing watching pandemic movies with COVID-19.

Overall, in the early days of the COVID-19 pandemic, there was an increase in the number of "pandemic movies" search queries made on Google. Our data show that trends to watch outbreak movies are highly correlated with the first case's date.

On the other hand, the parallel did not continue as the pandemic progressed. As shown in the chart and approved by predictability analysis, the two variants identified as the proliferation of COVID-19 patients and pandemic movies are not linearly dependent. Instead, they exhibit a reverse relationship, meaning that online interest in pandemic movies decreases as COVID-19 progresses. In behavioral terms, this result can be clarified as follows. First, as the number of approved cases increases and death rates begins to indicate that the pandemic has dire consequences, interest in pandemic films begins to rise and peak.

The second point is that despite a substantial increase in Google data, movie searches have decreased. This decline is surprising as the event and death curves tend to rise. The reversal of the increase in the search for movies after a certain period may indicate that the public's knowledge and curiosity about the subject have decreased. Decreased interest may be related to greater awareness of the COVID-19.

The decrease in your interest in movies is not parallel with the decline in obtaining information. However, it will be interesting for future researchers to investigate this relationship because interest in movies has decreased as the spread of the virus has increased, as shown in the Figure.

Although different content was created on the web environment for pandemic films, there is no demand for cinema. Therefore, the study is essential as it fills this gap. On the other hand, the sociological and psychological information presented in the literature proves what turned to pandemic movies to get information during the pandemic.

The study showed that Google Trends could monitor public concerns and trends to address them at the start of the pandemic. Alternative data sources include linked cross-sectional surveys repeated (e.g., monthly) of the specific population, but these are more expensive to implement, reach fewer people, and provide information in less time. It suggests an increase in watching pandemic movies, both in Turkey and globally, in response to the initial phase of the COVID-19 pandemic.

In the next few years, when the pandemic is over and the movie industry [...] returns to normal, it can say that a new type of big screen will emerge. Taking advantage of real-life events is one of the most used filmmaking methods, and many COVID-19 movies are inevitable (Ward, 2020).

FUTURE RESEARCH DIRECTIONS

In summary, this study suggested that interest in pandemic movies increased with COVID-19. Changes in various areas of daily life with COVID-19 may discussed in economic, cultural and psychological dimensions. The impact of the COVID-19 pandemic on leisure activities is extensive and great. More information about these activities may obtained through online search data, face-to-face interviews, etc. Also, leisure activities during the quarantine period can be evaluated by age, gender, income, and health.

CONCLUSION

The COVID-19 pandemic increased search queries for films and TV Series both worldwide and in Turkey. This study explored the interest in outbreak-related movies in the early stages of the outbreak.

The number of Google searches such as "pandemic movies" and selected films increased rapidly and changed throughout the world, and in December and June, it has changed over the preceding months. Increasing lockup boredom, reducing panic had a short-term effect on stress, sadness, suicide, or anxiety (Brodeur et al., 2020, p. 5). Emotion regulation strategies come into play that can lead to enhanced emotional coping skills with pandemic movies. Pandemic movies can serve as a guide or comfort for the public. This population-based observational study showed that the onset of the COVID-19 outbreak correlated with pandemic movies' search density. Therefore, it has been shown that internet data can determine its relationship to pandemic and movie viewing preferences.

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KEY TERMS AND DEFINITIONS

Cinema: Cinema is generally a branch of art that uses dialogue, editing, the scene's layout, light, sound, and decor by the film made. It has the opportunity to explain everything human in depth.

COVID-19: It is a contagious virus that causes respiratory tract infection and can pass from person to person.

Disease: The name was given to a specific abnormal condition in the body or mind that causes discomfort and dysfunction. It is used broadly to include injury, disability, syndrome, symptom, and abnormal standard structure and function types.

Google Trends: Google Trends is a public data source of real-time internet search models and was previously used for health-related research.

Pandemic: It is the general name given to epidemic diseases that spread and show their effects in a wide area in more than one country or continent in the world.

Pandemic Films: A pandemic movie can explain by analyzing the pandemic narration and form created following the genre codes and rules. Most narratives in films about the pandemic are based on their infected illnesses. It harbors the infected victim, and the disease becomes a pandemic. After the movie characters are connected to the infection source, they become a problem and embark on a dangerous journey to find a cure.

Quarantine: A health measure is implemented as a temporary holding and observation of people, goods, and animals from a country where infectious disease is common.

ENDNOTE

1 FAQ About Google Trends Data 2021. https://support.google.com/trends/answer/4365533?hl=en.

Chapter 15
Strategic Human Resource Management in the 21st-Century Organizational Landscape:
Human and Intellectual Capital as Drivers for Performance Management

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ABSTRACT

These days, employability and sustainability in the Romanian marketplace are seriously challenged by the general economic development conditions, the continuously rising living standards, and the unfortunate imbalance and irregularities in the policies of labor markets. These defining factors mirror in this current research that focuses on describing the importance, implications, and specificities of human resource management (HRM) and strategic human resource management in the 21st-century organizational landscape, while seeking to pinpoint the considerable and valuable benefits brought by human and intellectual capital as drivers for performance management at the organizational level. The results of the study themselves possess the explanatory power of showing that human resources are the main assets of the organization, which decisively determines the potential for present and future line of action, since human resources have unlimited growth and development potential, even though they are regarded as extremely rare, highly valuable, yet difficult to insure or replace.

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INTRODUCTION

Nowadays, Human Resource Management (HRM) – as the sophisticated process of managing people belonging to entities in a structured, constant and thorough manner, is fast becoming a key instrument in the 21st-century organizational landscape, while Strategic Human Resource Management (SHRM) – as the complex practice and sustainable process of attracting, developing, rewarding and retaining employees for the benefit of individuals, companies and society, emphasizes the role played by both human capital and intellectual capital as drivers for performance management.

To begin with, human resources represent one of the entities' main resources having the powerful capacity to increase their value over time, unlike other enterprises' resources which may be used in some cases physically and in other cases morally (Tociu *et al.*, 2017). Additionally, as organizations develop over time, it should be pointed out that they have to deal with a number of essential activities and tasks strongly related with HRM (Popescu & Popescu, 2015). Thus, among these particular activities and tasks can be mentioned the following components: firstly, managers will need to create a complex organizational plan capable to attract and to retain people possessing the exact skills the organization's need (Popescu, 1997; Popescu & Popescu, 2000); secondly, the implementation of the plan will involve several significant steps, among which can be stressed recruiting, selecting, integrating, training, rewarding, and evaluating the employees' performances in order to check on a continuous basses wheatear the organizational objectives are achieved (Popescu *et al.*, 2015).

In the new global economy, the management of human resources takes into consideration all the activities oriented towards ensuring, developing, motivating and maintaining human resources within the organization focusing on the methods needed, on the one hand, in order to achieve with maximum efficiency the entities' objectives and, on the other hand, in order to satisfy the needs of the employees (European Commission, 2017). A primary concern for specialists these days is closely related with the organizations' development and growth processes: in this context, entities worldwide have to deal more and more with a larger and more complex number of essential aspects of HRM (European Commission, 2018a). Likewise, another significant concern for specialists these days is closely related with the organizations' managerial processes and structures: in this context, managers worldwide have to deal more and more with the challenges derived from the need to thoroughly create and constantly adapt a plan capable to attract and retain people with the precise skills needed by their organizations (Holban *et al.*, 2017). Investigating the implementation of the entities' managerial plan as well as the entities' activities considered components of human resources management: (a) involves recruiting, selecting, integrating, training, rewarding the organizations employees, and, in the same time (European Commission, 2018b), (b) choosing the most appropriate benefits and permanently evaluating the performances in order to check if the organizational objectives are achieved (European Commission, 2018c).

Recent developments in business administration, economics and management have heightened the need for better understanding the implications of SHRM in the 21st-century organizational landscape, with a particular emphasis on the role and the importance of human and intellectual capital as drivers for performance management (European Commission, 2019).

Previous studies on SHRM have reported the significance and connections derived from HRM functions, examining the crucial and unprecedented contribution made by people in the astonishing and complex process of offering entities worldwide competitive advantages (Popescu & Dumitrescu, 2016a).

However, a major problem concerning SHRM comes precisely from the fast changes taking place in today's business environment and organizational landscape (Popescu & Dumitrescu, 2016b). This lead researcher to the conclusion that new ways need to be found in order for organizations to become, on the one matter, more appealing for their customers and, on the other matter, possess a higher competitive advantage, in order to enhance the advantages derived from applying the functions of SHRM (Popescu & Banța, 2019). In this context, questions have been raised about the role, implications and importance of human and intellectual capital as drivers for performance management, especially since all organizations have come to rely more and more on individuals' competencies, skills and talent, and people's capabilities to face the continuously challenging business tasks (Yi *et al.*, 2019).

The issues derived from the analysis of SHRM in the 21st-century organizational landscape and the aspects connected to human and intellectual capital as drivers for performance management have all grown in importance in the light of recent debates on the expansion of artificial intelligence' role in human beings daily routine and lives (Zappalà *et al.*, 2019). Some scientists continue to maintain the strong belief that human resource represents the organizations' most valuable resource, given the fact that any type of entity may only function through people (Popescu, 2019e). Nonetheless, other researchers share the great concern that qualified human resource is both difficult to find and highly expensive (Popescu, 2019g). This, in turn, points out to the necessity of implicating far more than before HRM in attaining individuals' development and in maximizing companies' potential with the aid of SHRM (Popescu & Popescu, 2019b).

The issue of SHRM has been a controversial and much disputed subject within the fields of business administration, economics and management, especially while examined together with human and intellectual capital as drivers for performance management (Popescu, 2019a). More recently, literature has emerged that offers contradictory findings about the implications and the involvement of human and intellectual capital as drivers for performance management in connection to SHRM (Liu *et al.*, 2019); which lead us to the strong belief that this research will prove to be extremely useful for scientists, policymakers, leaders, governmental and political prominent figures at a global level (Popescu, 2019b).

This paper will focus on SHRM in the 21st-century organizational landscape, while examining human and intellectual capital as drivers for performance management, seeking to offer viable solutions capable to increase companies' potential and visibility by targeting the decisive role possessed by people themselves rather than other types of entities' assets. In addition, this work will review the research conducted on HRM, in order to offer a better and broader representation of human resource, HRM and SHRM. In continuation, this research will give an account for the ways that could be approached by managers in order to ensure medium term and long term sustained business success through human resource. What is more, this paper will critically examine the benefits derived from the use of human and intellectual capital in organizations and also will discuss about the drivers for performance management in the attempt to show weather human and intellectual capital may be considered drivers for companies' performance management.

The central question in this book chapter asks how SHRM will be able to influence in a positive and constructive manner the 21st-century organizational landscape, while emphasizing human and intellectual capital importance and roles as drivers for performance management at a global level. In particular, this scientific research paper, will also examine six secondary research questions derived from the main aforementioned question: (RQ1) what do HRM and Personnel Management (PM) represent for the 21st-century organizational landscape and which are the main differences between these two key concepts? (RQ2) what is the role of HRM in enhancing organizations' performance in the 21st-century organizational landscape? (RQ3) what are the implications of HRM in creating and maintaining a well-balanced SHRM strategy on the long run, especially while taking into account the challenges specific to the 21st-century organizational landscape? (RQ4) what does performance management stand for and how can organizational performance be measured especially when taking into consideration human resources? (RQ5) what do the notions human capital and intellectual capital stand for? (RQ5) exactly in what manner does influence human capital and intellectual capital SHRM and how will human capital and intellectual capital be capable to act as drivers for performance management on the long term?

This paper has been divided into four parts. The first part deals with the general background, in the attempt to focus on carefully and thoroughly describing the definitions specific to HRM and Personnel Management (PM), while understanding the concepts and emphasizing the differences. In like manner, this particular section aims at presenting the role of HRM in enhancing organizations' performance in the 21st-century organizational landscape and stressing the differences between HRM and PM. What is more, the background section seeks to point out the crucial importance of HRM for organizational success by addressing key questions in order to find optimum answers to the current evolving business paradigms. The second part has focused on HRM and its regulatory foundation in EU as well as its practical significance in contemporary organizations, being the "backbone" of labor force worldwide, while focusing on the art of managing people with the aid of creative and innovative approaches. In continuation, the third part is meant to bring into attention human and intellectual capital as drivers for performance management as well as to stress the constructive ways capable to ensure both employee fulfillment and realization of management objectives. It should be emphasized also that the third part of this scientific research deals with the implications of HRM on the daily organizational lives and the ways of inducing and ensuring a balance between individual goals and organizational goals. The last part of this work, namely the fourth section, is represented by a case study concerned with developing a Model for HRM Processes in contemporary organizations, in order to offer optimum answers to the following significant question: "What does it take to create an Inclusive HRM Framework capable to enhance Romanian Organizations' Performance on the long-term?" It should also be brought to the attention the fact that this book chapter also possesses a section addressing solutions and recommendations for the subjects chosen for the analyses, conclusions and limitations of the study and the references part which highlights a few representative studies already published on the generous and vast domains of business administration, economics and management.

BACKGROUND

The first section of this paper entitled suggestively "Background" will examine the literature review on HRM and will seek to present the following determining elements, namely: firstly, addressing the meaning of the notions HRM and PM in the attempt of understanding the concepts and emphasizing the differences; secondly, presenting the role of HRM in enhancing organizations' performance in the 21st-century organizational landscape and stressing the differences between HRM and PM; and thirdly, aiming at painting the importance of HRM for organizational success and addressing key questions in order to find optimum answers to the current evolving business paradigms.

Human resources are the first strategic resources of an organization (trading company, institution, association, etc.) in the new information society, human capital replacing financial capital as a strategic resource (Darooneh, 2005; Venkatasubramanian, 2009).

According to scholars, academics and practitioners, human resources are believed to be unique in terms of their enormous potential for growth and development, and, in the same time, human resources are regarded as possessing an undeniable ability to know and overcome their own limitations. Organizations' success degree as well as companies' competitiveness degree starts from the premises that people is the most valuable asset of any type of entity (Dobrin *et al.*, 2012). A large and growing body of literature has investigated human resources coming to the conclusion that these assets have a great potential that must be deeply understood, carefully motivated and dully involved as much as possible in achieving the organizations' aims, objectives and purposes (United Nations & United Nations Economic Commission for Europe, 2013). There is a large volume of published studies describing the role of managerial decisions in the field of human resources which address the fact that managerial decisions must always be adapted to the characteristics and personality of the entities' employees in order to provide the necessary working environment capable to ensure organizations' long term success on the marketplace (Popescu & Popescu, 2002).

During the past 50 years, much more information has become available on HRM and PM, which shows the crucial importance of understanding these two concepts and emphasizing the differences between these two notions (see Table 1).

Table 1. Human Resource Management (HRM) and Personnel Management (PM): understanding the concepts and emphasizing the differences

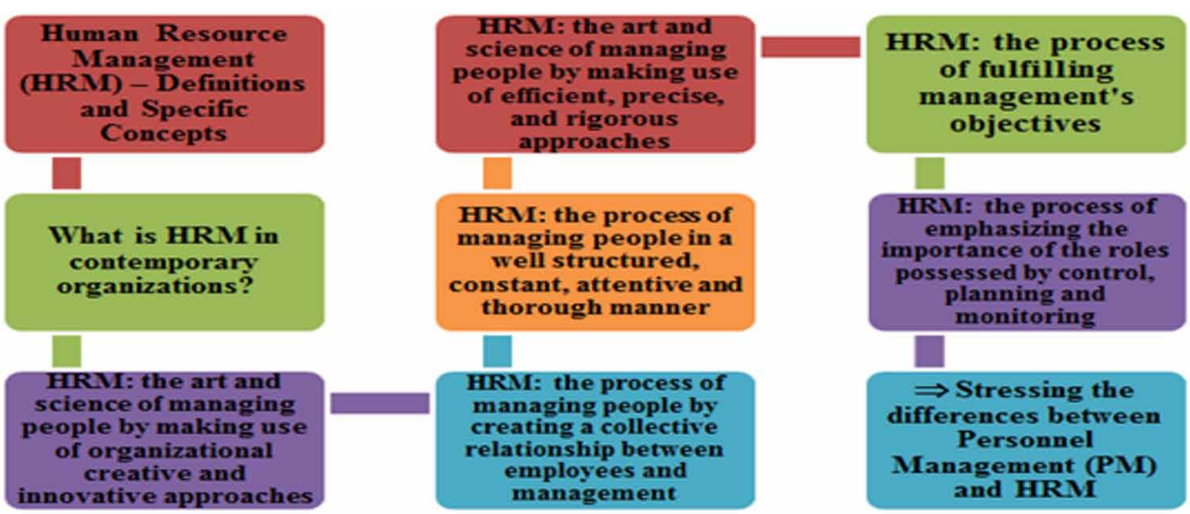
	Personnel Management (PM)	Human Resource Management (HRM)
Definitions:	• PM concerns a set of specialized activities that pursue the design, implementation and support of the essential and most important objectives of the organization regarding the use of its employees (Cole, 2011).	• HRM represents a set of both general and specific activities regarding the assurance, maintenance and efficient use of the personnel within a public or private organization (Argyris, 1960; Armstrong, 2006).
Differences:	• Specialists in personnel problems, unlike most specialists in an organization, have responsibilities to the entire workforce, not solely to the management of the organization (Becker, 1964).	• Reflects a complex issue of any organization: represents the most important aspect of an organization, since people are a key and vital resource for all entities all around the Globe, capable to ensure development, growth, survival and competitive success (Keenan, 2015).
	• Specialists in personnel problems, unlike most specialists in an organization, possess an important feature: their role concerns the correct treatment of all the employees of an organization, in this manner ensuring the communication possibilities (Becker, 1993).	• Reflects one of the most important investment necessities of an organization: human resources are the primary and the most valuable asset of an organization (Popescu *et al.*, 2008), yet the result of investing in human resources are not instantly visible, they become evident over time (Popescu *et al.*, 2016).
	• Specialists in personnel problems, unlike most specialists in an organization, possess an important feature: their role concerns the participation to the process of fair remuneration of the employees of the organization (Popescu & Popescu, 2018b).	• HRM usually refers to the absorption of personnel decisions within the operational responsibilities of the line departments, as well as in the strategic activities of the organization, which, in turn, reduces the personnel issues to the following aspects: budget, number of people and global economic performance (Cole, 2011; Popescu & Popescu, 2019a).
Examples:	• Firstly, specialists have acknowledged in specialty literature that PM covers both personnel strategy issues and operational issues (Zhao *et al.*, 2019).	• Firstly, investing money in HRM implicate the fact that organizations spend significant amounts with their employees, including: the costs with the staff remuneration, hiring, maintaining and developing the staff (Popescu *et al.*, 2015; Popescu *et al.*, 2017a,b,c,d).
	• Secondly, specialists have acknowledged in specialty literature that PM refers mainly to the activity of specialized personnel responsible for implementing the organization's objectives with reference to personnel matters (Beier *et al.*, 2019).	• Secondly, investing money in HRM guarantees the survival of an organization and a way to ensure an entity's competitiveness both today and in the future (Popescu, 2017; Popescu, 2018).

Source: the authors based on the sources highlighted above

Given the fact that according to Hamadamin & Atan (2019) strategic human resource management practices have a considerable impact of on competitive advantage sustainability, there is a need for "the mediation of human capital development and employee commitment", while findings from their study "revealed a linear and positive influence of the SHRM on the sustainability of "competitive advantages"; SHRM was also found to positively influence human capital development and the commitment of employees to the institutions; the influence of both human capital development and employees' commitment were found to have a partial mediation in the SHRM practices and sustainable competitive advantage (SCA) relationship", and, in the same time, "theoretical and management implications were suggested". It should also be pointed out that according to García-Alcaraz *et al.* (2019): "Total quality management (TQM) is a lean manufacturing tool that focuses on ensuring the production of goods that meet design specifications and give customer satisfaction, both attractive benefits highly appreciated by managers", while the fact that "there are several factors involved in the success of TQM programs, many of which are cultural aspects associated with human resources (HR)" should be seriously taken into consideration, which implicates that there is a keen need to develop "a structural equation model that integrates three latent variables related to internal HR: "managerial commitment," "employee integration," and "training and education," which are linked to the operational benefits of a manufacturing system".

Several studies investigating the role of HRM in enhancing organizations' performance have been carried out by stressing the differences between HRM and PM, which lead us to the idea that these days presenting the role of HRM should take into account in particular the ways of enhancing organizations' performance in the 21st-century organizational landscape from the perspective of emphasizing the differences between HRM and PM (see Figure 1).

Figure 1. Presenting the Role of Human Resource Management (HRM) in enhancing organizations' performance in the 21st-century Organizational Landscape and stressing the differences between Human Resource Management (HRM) and Personnel Management (PM)
Source: the authors



Throughout this paper, the term HRM will reflect the direct implications and indirect involvement of human resources at the organizations' level, taking into consideration the entities' economic activities and general production and working conditions. In addition, throughout this paper, the term HRM will account for the entities' possibility of ensuring the capitalization of the means of production capable to induce individuals' well-being, growth and development for the society, and satisfying people's needs.

The direct implications and indirect involvement of HRM concerning the SHRM have been widely investigated (Kell & Lang, 2017). Thus specialists reached the general consensus that the human factor has a great influence, on the one hand, on to the modern knowledge-based organizations and, on the other hand, on the development of all the economic activity that take place in today's market economy, which concluded in the following aspects (see Table 2):

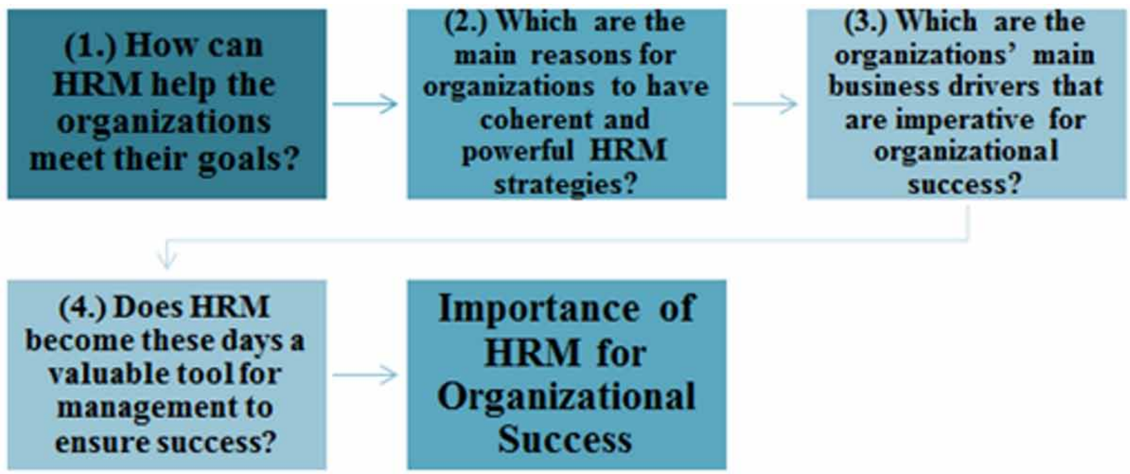
Table 2. Human factor's great influences on to the modern knowledge-based organizations and on the development of all the economic activity that take place in today's market economy

	Human Factor's Great Influences on to the Modern Knowledge-Based Organizations and on the Development of All the Economic Activity That Take Place in Today's Market Economy
Influences and general context:	• Today's market economy is based on the property in different forms, while the private, individual or associative organizations represent the main economic entities (Van Dierendonck *et al.*, 2016).
	• Today's market economy encourages competition including in the domains of HRM and SHRM, which makes possible the well-function of the economic laws of demand and supply, determining the progress of the economy and of the society as well as the existence of the private property in showing the autonomy of decisions (Rao *et al.*, 2014).
	• Today's market economy enables the democratic state to watch over the manner in which the market laws function in order to ensure and to preserve the normal development of all economic agents activities, since these days profit does not represent anymore the main purpose of the organizations' activity (Sakaki, 2019).
	• Today's market economy helps HRM and SHRM with the aid of market mechanisms in order to regulate the entire economic activities, while the prices are freely set by the confrontation between demand and supply (Ruan *et al.*, 2019).

Source: the authors based on the sources highlighted above

The importance of HRM for organizational success implicates finding an answer to the following decisive questions, namely: (1.) "How can HRM help the organizations meet their goals?" (2.) "Which are the main reasons for organizations to have coherent and powerful HRM strategies?" (3.) "Which are the organizations' main business drivers that are imperative for organizational success?" and (4.) "Does HRM become these days a valuable tool for management to ensure success?" (see Figure 2).

Figure 2. Importance of Human Resource Management (HRM) for Organizational Success: addressing key questions in order to find optimum answers to the current evolving business paradigms
Source: the authors



HUMAN RESOURCE MANAGEMENT IN EUROPEAN UNION AND IN CONTEMPORARY ORGANIZATIONS: THE ART OF MANAGING PEOPLE WITH THE AID OF CREATIVE AND INNOVATIVE APPROACHES

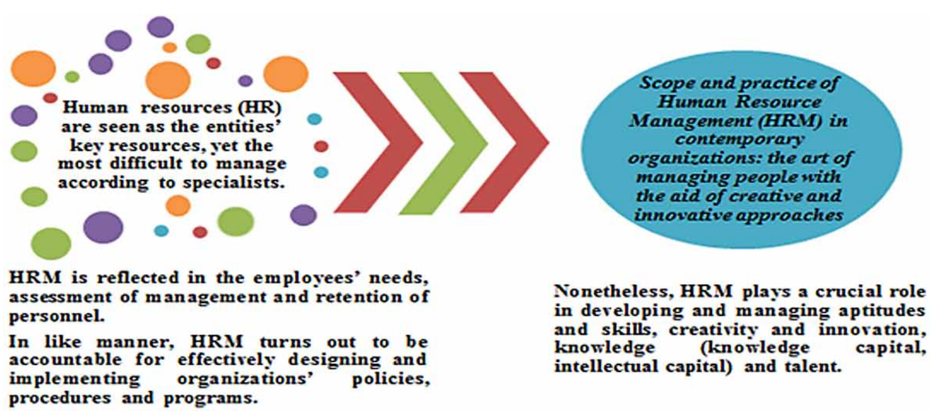
The second section of this paper entitled suggestively "Human Resource Management in EU and in contemporary organizations: the art of managing people with the aid of creative and innovative approaches" will examine the implications and the involvement of today's labor market in satisfying employees' needs and quest for creative and innovative approaches at their work places.

The theory of HRM in EU emphasizes to all individuals benefit from the freedom of movement for workers within the Union, based on numerous laws, rules and regulations, among which could be mentioned, for example, the "Regulation (EU) No 492/2011 of the European Parliament and of The Council of 5 April 2011 on freedom of movement for workers within the Union" (European Parliament & The Council, 2011). Thus, based on the "Regulation (EU) No 492/2011 of the European Parliament and of The Council of 5 April 2011 on freedom of movement for workers within the Union" it has been highlighted that the "freedom of movement for workers should be secured within the Union", the determining objective being "the abolition of any discrimination based on nationality between workers of the Member States" while referring to the following cases: "employment, remuneration and other conditions of work and employment, as well as the right of such workers to move freely within the Union in order to pursue activities as employed persons subject to any limitations justified on grounds of public policy, public security or public health" (European Parliament & The Council, 2011). What is more, the "Regulation (EU) No 492/2011 of the European Parliament and of The Council of 5 April 2011 on freedom of movement for workers within the Union" mentions that the freedom of movement represents a fundamental right of both workers and their families, thus strongly encouraging individuals' mobility of labor within the European Union in the attempt to foster individuals' well-being, the chance to a better life and better working conditions (European Parliament & The Council, 2011).

The countries which are part of the European Union operate based on strict HR policies taking into consideration the principles that govern the "equal treatment of staff" (European Union, 2021). The European Union has displayed, in a constant manner, a great concern towards any type of discrimination, prohibiting by law discrimination caused by: gender (such as, for instance, parental leave, promotion, or pay), racial or ethnic origin, religion or belief, disability, age or sexual orientation (European Union, 2021). In continuation, all Member States are acting towards a healthy work environment, paying strict attention at avoiding all types of workplace discrimination, among which could be mentioned the following forms: (a) direct discrimination – which can be reflected by the six types of discriminatory actions aforementioned; (b) indirect discrimination – which can occur in those particular cases in which a set of practices, policies, rules or regulations that should apply to all individuals end up by having a negative impact towards a group of people; (c) harassment – which may be associated with any form of "unwanted conduct", such as bullying or other similar patterns of behavior, that creates a hostile working environment; (d) instruction to discriminate – which may be encountered in those cases in which a person or a group of persons incites another person, a group of persons or certain entities to discriminate against someone else; and (e) victimization – which may occurs when "supervisors or colleagues retaliate in reaction to a discrimination complaint" (European Union, 2021).

The practice of HRM in contemporary organizations should be based, at an ideal level, on the idea of managing people with the aid of creative and innovative approaches. Since the labor market is defined as the economic space in which the demand for labor force – namely, the owners of capital, as buyers and the offer for labor force – namely, the owners of the labor force, meet and are capable to negotiate freely (Zagonari, 2016; Nguyen *et al.*, 2019), in today's modern society the main features of the labor market are the following ones: (a) the labor market shows, one the one hand, a lower degree of flexibility and, on the other hand, a more pronounced degree of sensitivity (Pokrovskaia *et al.*, 2019); (b) the labor market is more complex and more organized, and, in the same time, better regulated than the other markets (Dai, 2019); (c) the labor market is based on distinguished contractual and participatory characteristics (Witek-Crabb, 2019); (d) the labor market is characterized by a stronger state intervention than on other markets, especially since it is particularly sensitive to decisions made on other markets, adapting to their movements, requests and signals (Midttun *et al.*, 2019) (see Figure 3).

Figure 3. Scope and practice of Human Resource Management (HRM) in contemporary organizations: the art of managing people with the aid of creative and innovative approaches
Source: the authors



The analysis of HRM in EU and in contemporary organizations, seen as the art of managing people with the aid of creative and innovative approaches, should additionally focus on the fact that the labor supply is regulatory protected by EU and is made up of the work that the members of companies can submit in time and is determined by two major components: (a) the first component is the economic one, which addresses the entities' concern that the salary must be sufficient to allow the worker to maintain his work capacity, but, in the same way, the salary must be motivating enough to encourage employees' creative and innovative approaches and spirit (Urquijo *et al.*, 2019); (b) the second component is the social one, which addresses the entities' concern with regard to the fact that individuals seek far more than material rewards, they need to be respected by their bosses and fellow co-workers for their professional performances (Popescu, 2019d).

HUMAN AND INTELLECTUAL CAPITAL AS DRIVERS FOR PERFORMANCE MANAGEMENT: CONSTRUCTIVE WAYS TO ENSURE BOTH EMPLOYEE FULFILLMENT AND REALIZATION OF MANAGEMENT OBJECTIVES

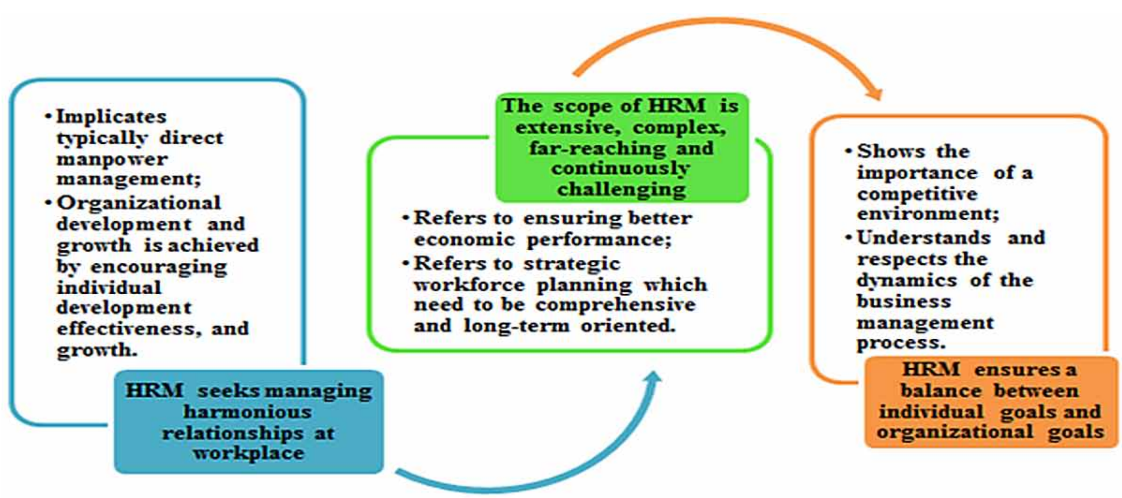
The second section of this paper entitled suggestively "Human and Intellectual Capital as Drivers for Performance Management: Constructive Ways to ensure both employee fulfillment and realization of management objectives" addresses both human capital and intellectual capital as drivers for performance management, in the attempt to describe and analyze the constructive ways capable to ensure both employees' fulfillment and the realization of the management's objectives (see Figure 4).

Figure 4. Human and Intellectual Capital as drivers for Performance Management: constructive ways to ensure both employee fulfillment and realization of management objectives
Source: the authors

When analyzing the connections existing between HRM and human and intellectual capital – as drivers for performance management, the following elements need to be addressed in order to have a broad picture of the constructive ways meant to ensure both employee fulfillment and realization of management objectives:

1. First of all, it should be acknowledged that HRM manages human intellect (Sokas *et al.*, 2019).
2. Second of all, it should be stressed that HRM focuses on managing physical capital of employees (Sutha, 2019).
3. Third of all, it should be emphasized that HRM focuses on managing emotional capital of employees (Sutha, 2014).
4. Fourth of all, it should be outlined that HRM is keen on HR development, planning, recruitment, selection, training of employees (Popescu, 2019c).
5. Fifth of all, it should be highlighted that HRM is keen on payroll management, employees' rewards, and legal procedures (Popescu & Popescu, 2018a).
6. Sixth of all, it should be underlined that HRM seeks developing harmonious relationships at workplace (Gómez-Bezares *et al.*, 2019).
7. Seventh of all, it should be understood that HRM seeks managing harmonious relationships at workplace (Kucharcikova *et al.*, 2019).
8. And, in the same way, eighth of all, it should be accentuated that HRM ensures a balance between individual goals and organizational goals (Popescu, 2019f).

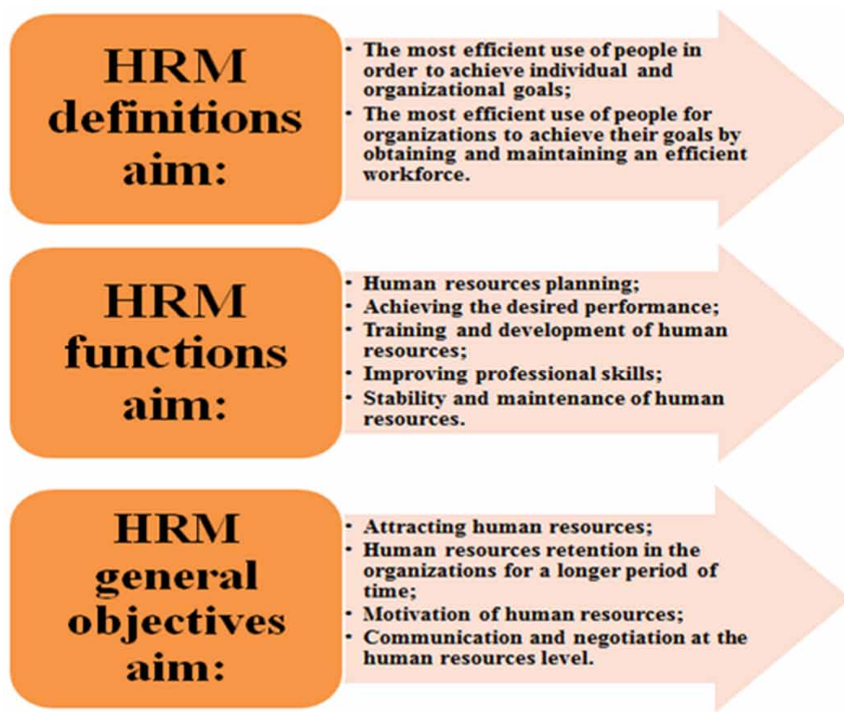
Figure 5. Human Resource Management (HRM) and ways of ensuring a balance between individual goals and organizational goals
Source: the authors



In the process of determining the way in which HRM and can ensure a balance between individual goals and organizational goals, specialists have suggested that HRM represents an organizational activity that allows the most efficient use of people (namely, of employees) to achieve organizational group and individual goals (Gallagher *et al.*, 2019). Moreover, HRM consists of numerous activities including the one presented and described in the lines below:

- Analysis and design of job descriptions (Ying Lee *et al.*, 2019);
- Personnel planning (Tang *et al.*, 2019);
- Personnel recruitment, selection and orientation (Guglielmo D'Amico *et al.*, 2019);
- Career counseling for employees (Lo, 2019);
- Performance evaluation (Maree & Di Fabio, 2018);
- Work-related benefits and benefits (Ulrich *et al.*, 2019);
- Health and safety (Lombardi *et al.*, 2019) (see Figure 5).

Figure 6. Human Resource Management (HRM): definitions, functions and general objectives
Source: the authors

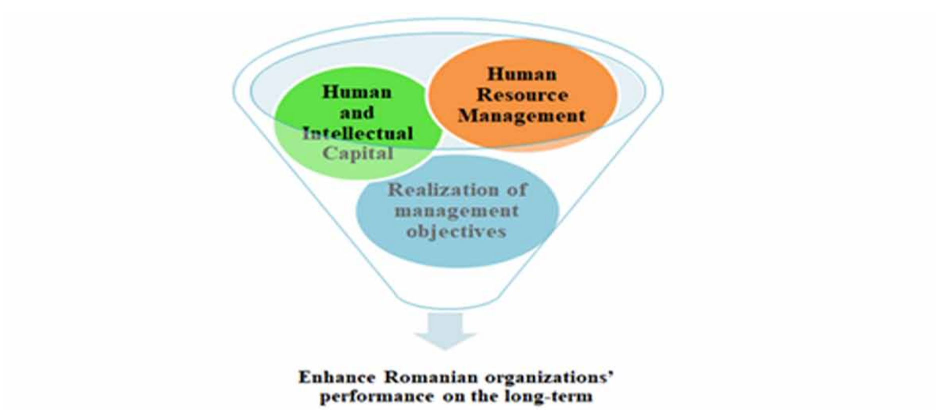


Since human and intellectual capital represent key drivers for performance management, HRM places on one of its top positions the need to promote the benefits of teamwork and organizational climate (Shifnas & Sutha, 2016), which leads academics and specialists to the conclusion that HRM acknowledges, on the one matter, the importance given to the specific issues related with motivation and communication at the place of work, and, in the same manner, shows a deep concern towards the implications of culture management at the level of organizations (Fournier *et al.*, 2018). Besides these elements, the development and growth of HRM at the level of companies, has naturally led to the belief that SHRM became, due to gradual transformations, a distinctive, highly important and strategic organizational function, bringing at this stage a very important contribution to the entities' personnel activities (Aykan *et al.*, 2019). Nevertheless, the strategies and policies in the field of HRM combined with the force generated by both human and intellectual capital come to ensure the success of organizations, for example, by the use of training specialists in the respective field (Rodríguez-Sánchez *et al.*, 2019) (see Figure 6).

CASE STUDY: DEVELOPING A MODEL FOR HUMAN RESOURCE MANAGEMENT PROCESSES IN CONTEMPORARY ORGANIZATIONS: WHAT DOES IT TAKE TO CREATE AN INCLUSIVE HUMAN RESOURCE MANAGEMENT FRAMEWORK CAPABLE TO ENHANCE ROMANIAN ORGANIZATIONS' PERFORMANCE ON THE LONG-TERM?

The second section of this paper entitled suggestively "Case study: Developing a Model for Human Resource Management Processes in contemporary organizations: What does it take to create an Inclusive Human Resource Management Framework capable to enhance Romanian Organizations' Performance on the long-term?" seeks to present a model for HRM processes in contemporary organizations, in order to emphasize the main relationships derived from the idea of creating an inclusive HRM framework capable to enhance Romanian organizations' performance on the long-term (see Figure 7).

Figure 7. Developing a Model for Human Resource Management Processes in contemporary organizations and creating an Inclusive Human Resource Management Framework capable to enhance Romanian Organizations' Performance on the long-term
Source: the authors



Individual professional performance:
➢ Can be determined by the motivation of the employees, their ability and willingness to train and to improve.
➢ Is dependent on the physical capacity and the intellectual capacity of the employees to achieve the assumed organizational objectives.
➢ Can be characterized by productivity, creativity and loyalty.
Creating a better organizational climate:
❖ Creativity: people are encouraged by their organizations to be passionate about self-improvement, taking initiative, training and creation processes. ❖ Loyalty: people are encouraged by their organizations to keep their current jobs or by getting better jobs within their organizations, by being highly motivated by their salary and other forms of rewards, thus ensuring the stability of the companies.

Developing a model for HRM processes in contemporary organizations and creating an inclusive HRM framework capable to enhance Romanian organizations' performance on the long-term implicates realizing the fact that performance evaluation is one of the basic activities of HRM, which determines the degree to which the employees perform the tasks effectively (Tan *et al.*, 2008). Similarly, developing a model for HRM processes in contemporary organizations and creating an inclusive HRM framework capable to enhance Romanian organizations' performance on the long-term implicates realizing the fact that performance evaluation seeks to address whether the organizations' employees are paid correctly and completely for the responsibilities assigned to them (Velenturf *et al.*, 2019) (see Figure 8).

Figure 8. Main characteristics of a Model for Human Resource Management Processes in contemporary organizations capable to enable the creation of an Inclusive Human Resource Management Framework meant to enhance Romanian Organizations' Performance on the long-term
Source: the authors

In the same way, the process of developing a model for HRM processes in contemporary organizations and creating an inclusive HRM framework capable to enhance Romanian organizations' performance on the long-term involves finding viable solutions to constructively, correctly and optimally evaluate the results obtained by individuals, by taking into account their intellectual, physical, professional and managerial potential and by comparing this potential with the objectives and requirements of the position currently occupied by the employee (Pirmana *et al.*, 2019) (see Table 3).

Table 3. An Inclusive Human Resource Management Framework capable to enhance Romanian Organizations' Performance on the long-term

	Human Resource Management (HRM) Framework	Ways to Enhance Romanian Organizations' Performance on the Long-term
Solutions:	• The organizational performance evaluation of the employees must be systematic and must be done by using specific evaluation procedures that are transparent and part of company policy (Tak *et al.*, 2019).	• Among the criteria for evaluating performance can be identified the following key issues: competence in the position; orientation towards excellence; professional characteristics (such as, for example, self-control and availability); concern for the company's objectives; adaptability on the job; decision-making capacity; team spirit; and communication capacity (Gismera *et al.*, 2019; Latifi & Lim, 2019; Zuo *et al.*, 2019; Wu *et al.*, 2019).
	• The organizational performance evaluation of the employees must be formalized, since it guides itself on the company set of rules, but in the same time it must allow employer-employee constructive dialogue and solutions for future improvement (Aghayeva & Ślusarczyk, 2019).	• In order to enhance organizations' performance on the long-term, performance standards should be expressed by the following indicators: (a) quantity, reflected by the number of products and/or the volume of services provided by the entities; (b) quality, which should always seek to address the highest standards and reflect best the objectives of the entities; and (c) the efficiency of the use of material and financial resources, reflected through key indicators such as costs, time, the steps needed in order to make products and services (Lai *et al.*, 2019; Leksono *et al.*, 2019; Kiseľáková *et al.*, 2019; Pérez-Ordás *et al.*, 2019; Ullrich *et al.*, 2019).
	General conclusion: An inclusive HRM framework capable to enhance Romanian organizations' performance on the long-term should seek at all times to ensure the full transparency of the process and the positive motivation of the personnel.	

Source: the authors based on the sources highlighted above

SOLUTIONS AND RECOMMENDATIONS

According to researchers and practitioners, the normal conduct of the activity of each and every type of organization requires the organization to create specialized departments depending on the profile and activity volume, organization form and size (Zhang *et al.*, 2019), among which the Human Resources Department (HRD) functions according to the company's own needs and based on the company's own strategic planning (Ijadi Maghsoodi *et al.*, 2019).

Nowadays, the general organizational landscape addresses the implications of HRM and SHRM on the basic organizational activities and positions both human capital and intellectual capital in the center of all organizations worldwide, given the fact that human and intellectual capital act as drivers for performance management (Paprocka, 2019).

There is widespread agreement that HRD represents the structure of the organization empowered to value all the other resources available to the organization, which leads, in turn, to reaching the strategic organizational strategic objectives (Stankevičiūtė & Savanevičienė, 2018).

A number of researchers claim that the management of human resources aims to ensure all positions within the structure of an organization while benefiting from the inputs of the right people, which involves, on the one hand, identifying individuals' needs, and, on the other hand, which implicates recruiting, selecting, employing, motivating, rewarding, promoting, training the organizations' employees (García-Alcaraz *et al.*, 2018; Joshi & Islam, 2018; Sinclair & Phillips, 2018).

In terms of solutions and recommendations concerning SHRM in the 21st-century organizational landscape, with reference to human and intellectual capital as drivers for performance management, while focusing on ways of developing a model for HRM processes in contemporary organizations, especially when targeting to create an inclusive HRM framework capable to enhance Romanian organizations' performance on the long-term, specialists suggest entities to carry out activities in the following areas (see Table 4):

Table 4. Solutions and recommendations concerning SHRM in the 21st-century organizational landscape, with reference to human and intellectual capital as drivers for performance management, while focusing on ways of developing a model for HRM processes in contemporary organizations, by targeting an inclusive HRM framework capable to enhance Romanian organizations' performance on the long-term

	SHRM in the 21st-Century Organizational Landscape, With Reference to Human and Intellectual Capital as Drivers for Performance Management	**Focusing on Ways of Developing a Model for HRM Processes in Contemporary Organizations, by Targeting an Inclusive HRM Framework Capable to Enhance Romanian Organizations' Performance on the Long-term**
Solutions and recommendations:	• Concern for the organizations' staff:	• Includes managers and leaders awareness concerning the following organizational processes: recruiting, selecting, hiring, promoting, managing employees' assessment, appraisal systems, evaluations, records, and so on and so forth (Cho & Ahn, 2018; García-Sánchez *et al.*, 2018; Harwood, 2016).
	• Concern for the organizations' labor standardization:	• Includes managers and leaders awareness concerning the following organizational processes: elaboration and revision of labor norms (Watkin *et al.*, 2019).
	• Concern for the organizations employees' education:	• Includes managers and leaders awareness concerning the following organizational processes: personnel training, specialization and improvement (Hosseininia & Ramezani, 2016; Huang *et al.*, 2016; Preuss, 2016).
	• Concern for the organizations evaluation of employees' performance:	• Includes managers and leaders awareness concerning the following organizational processes: ensures the conditions for optimal use of human resources; ensures the human factor oriented design capable to enable human resources a high level of performance in the organization; facilitates HRM also addresses all the requirements of the human factor determined by technical, psychosocial and particular characteristics (Sánchez-Hernández *et al.*, 2016; Popescu, 2019a,b,c).
	• Concern for the organizations evaluation of employees' payroll:	• Includes managers and leaders awareness concerning the following organizational processes: establishing wage rights, motivation and promotion (Ernst, 2019; Hoang, 2019; Malara *et al.*, 2019; Naveed *et al.*, 2019; Parastuty & Bögenhold, 2019).

Source: the authors based on the sources highlighted above

The added value, scarcity, and the future prospects of human resources have shown an unlimited growth and development potentials, yet difficult to insure or replace. In the following Table 5 a succinct representation of the barriers, the drivers, and the challenges of the main dimensions that are related to HR in organizational contexts (see Table 5. A critical overview of the barriers, the drivers, and the challenges of selected HR dimensions).

Table 5. A critical overview of the barriers, the drivers, and the challenges of selected HR dimensions

Human Resources (Selected Dimensions)	Drivers	Barriers	Challenges
Macro-scale	Unlimited growth and development potential	Extremely rare	• Extremely useful for scientists, policymakers, leaders, governmental and political prominent figures at a global level.
Human-scale	Highly valuable in terms of organizational reliance to more and more on individuals' competencies, skills and talent, and people's capabilities to face the continuously challenging business tasks	Difficult to insure and replace	• Attract and retaining people who possess the exact precise skills needed by their organization. • Satisfy the needs of the employees: knowledge, self-development, sense of belonging, sharing and offering. • Enhancing the existing knowledge of manipulating internal human resources and organizational capital through a co-integrated scheme based on an innovative in-house Holistic Assessment Performance Index for Environment (HAPI-E) industry tool while assimilating the principles of circular economy through the Eco-innovation Development and Implementation Tool (EDIT).
Sustainability-scale	Sustainable process of attracting, developing, rewarding and retaining employees for the benefit of individuals, companies and society	The existence of social and people-related barriers can be considered under three groups, namely, the "sustainable provision and modeling schemes", "socio-cultural appreciation and payment schemes", and "regulatory and maintenance schemes"	• Involvement of several significant steps, among which can be stressed recruiting, selecting, integrating, training, rewarding, and evaluating the employees' performances in order to check on a continuous basses wheatear the organizational objectives are achieved.
Organizational-scale	Powerful capacity to increase organizational value over time		• Achievement of maximum efficiency of the businesses' objectives: managerial, strategic, profitability, financial growth. • Organizational development and growth processes: technological, manufacturing, industrial.
Integrate-scale	Ensuring of medium term and long term sustained business success through human resource		• New emerging paths of organizational HRM can be further investigated, offering a deeper appraisal of circular economy under the inter-organizational perception regarding the impacts of circular economy-ecosystem services toward an inter-organizational functional stream model associated with distinguished proactive and post treatment risk values.

Source: Adapted from: Popescu, 1997; Popescu & Popescu, 2000; Kyriakopoulos, 2011a; Kyriakopoulos, 2011b; Kyriakopoulos, 2012; Chalikias et al., 2014; Popescu et al., 2015; European Commission, 2017; Holban et al., 2017; Aravossis et al., 2019; Kapsalis et al., 2019; Yi et al., 2019.

Based on the critical overview of Table 5, above, HR is an integral asset of organizations' and socio-economic growth. In such a prospect the critical approach of strategic HRM in the today and future of organizational landscape is associated with the environmental, marketing, economic, governmental, and procedural viewpoints leading to key indicators which are subject to positive and negative externalities. In this respect the dimensions of economy especially in its: economy (Kapsalis et al., 2019), technology (Kyriakopoulos et al., 2019), industry (Aravossis et al., 2019), services-businesses management (Kyriakopoulos, 2012), project management (Kyriakopoulos, 2011a), total quality management (Kyriakopoulos, 2011b), knowledge management (Chalikias et al., 2014), are critical drivers of developing organizational asset against competitors and envisaging feasible implementation of HRM-based strategic targets. These should be also valued among the most significant and prevalent HR drivers for the development of flexible organizational structures that encourage entrepreneurial creativity, structural flexibility, and managerial change.

CONCLUSION

This research extends our knowledge of HRM and SHRM in the 21st-century organizational landscape, strives to discuss the main implications of human and intellectual capital as drivers for performance management, and addresses the main concern of organizations' management regarding the human resources requirements based on which the decisions are made at entities' levels.

The present study provides additional evidence with respect to organizations' policy in the field of human resources, having in mind the belief according to which a properly formulated human resources policy has the immense potential of empowering and motivating the entities' personnel, and, in the same time, the capability to enable the companies' management to reach its general objectives.

The study has confirmed the findings of other reputed academics, researchers and specialists (Andersen *et al.*, 2019; García Mestanza *et al.*, 2019; Kuitto *et al.*, 2019; Taylor & van der Velden, 2019) which found that an effective human resources policy should include several key elements, among which can be stressed the following decisive one: (a) integration of human resources management into the general management framework and model of the organizations; (b) efficient leadership, managerial and staff actions at all levels; (c) creating an well-balanced, carefully integrated and optimum climate of employment for the organizations' employees; and (d) fining and supporting the necessary means of recognition and motivation of the organizations' staff capable to achieve high organizational results.

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KEY TERMS AND DEFINITIONS

Human Capital: Is regarded as a multifaceted and multifactorial concept, possessing heterogeneous traits, which addresses a complex set of theoretical knowledge belonging to individuals, as well as a general and specialized set of skills capable to aid employees at their places of work, thus enabling the process of creating goods and services for our society during the production activities.

Human Resource Management: Represents the organizations' most praised and valuable assets, since human resources are regarded indeed as the most strategic resources of the entities, on the one hand, being considered as unique due to their ability to enable growth, development, self-improvement and self-awareness, and, on the other hand, embodying a complex set of both general and specific activities addressing, in the same time, the assurance, maintenance and efficient use of human resources within companies.

Intellectual Capital: Is seen as a highly complex notion with multiple roles and functions, which embodies a dynamic system of intangible resources and activities that possess the capacity to ensure and to enhance the sustainable competitive advantage of organizations over time.

Performance Management: Embodies all the necessary organizational abilities capable to empower the entities' policy in the field of human resources created by the management of the organization to adequately and carefully guide the activity of each employee, no matter of the hierarchical level existing in those companies, by taking into consideration the requirements specific to the efficient human resources policy which focuses on integrating human resources management into the management of the organization; motivating of the organizations' entire staff to carry out the activities arising from the need to reach its strategic objectives; ensuring a climate of positive involvement and deep motivation of all the employees in order to achieve high results and to participate directly in the adoption of the decision-making processes at the level of the companies.

Strategic Human Resource Management: Reflects the complex processes and specific organizational activities centered on the human resources of organizations, being subordinated to the general strategy of the company and strongly contributing to the companies' objectives, namely, firstly, to the strategic objective, which refers to the forecasting, planning and adoption of the long-term personnel policy and, secondly, to the operational objectives, which reflect more tactical and administrative issues connected with the organizations.

Chapter 16
Women Entrepreneurship Through the COVID-19 Pandemic and Beyond

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ABSTRACT

The chapter investigated the COVID-19-induced challenges faced by women entrepreneurs in Zimbabwe, the strategies used by women entrepreneurs to survive the COVID-19 crisis, and the government support needed by women entrepreneurs to recover from the pandemic. A quantitative research approach using a structured questionnaire was adopted for gathering data. Empirical findings illustrate that women entrepreneurship in Zimbabwe faces a multiplicity of challenges due to the COVID-19 pandemic. Additionally, findings indicate that women entrepreneurs are cutting down costs, have introduced new delivery channels, and have reviewed their business models to become more resilient. However, women entrepreneurs also expect the government to offer readily accessible finances, arrange for skills and capacity-building training in response to the new normal, and craft economic recovery policies and packages that are tailored to specifically respond to the needs of women entrepreneurs. The study has both theoretical and practical implications.

BACKGROUND

Women entrepreneurship is an important economic activity in any economy worldwide (Terjesen, Bosma & Stam, 2016; Jaim, 2020). Women entrepreneurs are the backbone of many economies around the world (Price, 2020), most crucially in low and middle-income countries where women-run businesses have a key role in poverty reduction, employment generation, and economic diversification (Koltai & Geambasu, 2020). According to the Global Entrepreneurship Monitor (GEM) (2019), across the 59 countries of its focus, at least 231 million women are starting or running businesses, and women-owned enterprises account for approximately 30-37 percent of all SMEs in low-income countries. Therefore, the socio-economic development of low-income countries is hinged upon the survival of women's

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entrepreneurial ventures (Ngoasong & Kimbu, 2018; Jaim, 2020). Despite seeming improvements in women's entrepreneurial participation in different industries, the women's business sector is stifled by a multiplicity of obstacles that compromises its sustainability and growth (Moses, Olokundun, Falola, Ibidunni, Amaihian & Inelo, 2016). The challenges faced by women entrepreneurs are rooted in unequal opportunities between men and women, especially in Africa (Bomani & Derera, 2020). As such, Bomani and Derera (2020) note that men have far greater access to economic resources, and men have more decision-making powers than women. Rudhumbu, du Plessis and Maphosa (2020) agree and add that the challenges confronting women entrepreneurs are deeply rooted in socio-cultural issues which view women in a patriarchal context.

The existing challenges have been worsened by the impact of the Coronavirus (COVID-19) pandemic, and the government's desire to combat the spread of the virus through the implementation of national lockdown measures (Mashingaidze, Bomani & Derera, 2021). The COVID-19 pandemic emerged for the first time in China in December 2019, and as of 19 May 2020, Zimbabwe had 46 confirmed cases of COVID-19 and 4 deaths (Price, 2020). The unprecedented spread of COVID-19 infections led to the enforcement of lockdown regulations from the 27th of March 2020 (Government of Zimbabwe, 2020). The implementation of the national lockdown banned all social gatherings, enforced social distancing of 1.2 meters between 2 people, people were mandated to regularly sanitize their hands and wear face masks in public places as precautionary measures (Price, 2020). These measures have led to the closure of many businesses, retrenchments of employees, among others, as a result of business losses (Popović-Pantić, Semenčenko, Vasilić, 2020).

According to Greene and Rosiello (2020), the COVID-19 pandemic has resulted in an economic crisis of a magnitude unprecedented in current times. Notably, the pandemic has amplified social and gender inequalities (Manolova, Brush, Edelman & Elam, 2020). The pandemic has had a significant impact on the women providing services whose micro-businesses were closed for some period at the beginning of the crisis leaving them without any income (UN Women, 2020; Sangem, 2020). Some African countries, including Zimbabwe, declared a state of emergency during the first wave of the pandemic, starting in March 2020. During that period, approximately 65% of women entrepreneurs reported that the pandemic negatively affected their business activity, 27% stated that their business activity was not yet affected by the pandemic but that they expected negative impacts in the following 2-5 months (Mhlanga & Ndhlovu, 2020). For the majority of women, it was not easy to avoid the negative effects of the COVID-19 crisis caused by the closing of the borders between countries (Hambloch, Homann Kee Tui & Ochieng Ojiewo, 2020). The COVID-19 crisis has exposed the vulnerabilities of women entrepreneurs, calling for a rethink of how women-led businesses are led or managed (Sangem, 2020).

Before COVID-19, in 2019, women entrepreneurs were already experiencing a slowdown in growth due to economic challenges faced in Zimbabwe (Derera & Bomani, 2020). While researchers note the longer-term direct and indirect consequences of the pandemic, particularly its impact on women entrepreneurs, there is no doubt that the COVID-19 pandemic is going to be part of our daily lives shortly (Mashingaidze et al., 2021). The current crisis could erase years of development gains that the sector had accrued, and take time for the development and growth of women entrepreneurship in Zimbabwe.

Given that Zimbabwe is an awakening giant in Southern Africa, with women and youth making up the main actors in the economy (Rice, 2020), it has also been subjected to an increase in business closure due to the COVID-19 pandemic (Rice, 2020). Besides, the negative effects of the social distancing, lockdown measures, cancellation of important events (e.g., trade fairs), and the general concerns over health and safety have been felt by women entrepreneurs. Despite a potential recovery expedited by the government's success in containing the virus, the impact of the pandemic is remaining very significant and unpredictable. This has raised significant questions about the many COVID-19 induced challenges faced by women entrepreneurs, and how these women-led businesses are strategically responding to the sudden changes in their external environment, and what the government is doing to support women's businesses. Derera et al. (2020) claim that governments need to priritise investing in women entrepreneurship as this will not only maximise the opportunity to optimise their potential to boost the global economy but to move them towards equal economic participation in earnest.

Link and Strong (2016) note that studies of women entrepreneurs in developing countries are still relatively few compared to those in developed countries. According to Moses et al. (2016), this is because, historically, most entrepreneurs in the formal sector have been made, and an awareness of the importance of female entrepreneurship has only relatively recently been highlighted (Saridakis, Marlow & Storey 2014). Mashapure et al. (2021) contend that the presence of women-owned businesses in Zimbabwe despite the COVID-19 pandemic is evidence that Zimbabwean female entrepreneurs do have strong intentions to remain in their businesses, grow them, and have a positive attitude towards their businesses. The chapter seeks to explore how women entrepreneurs are surviving the COVID-19 pandemic and strategies to enhance the development of women entrepreneurship post-COVID-19 crisis. Thus, the chapter contributes to the body of knowledge by (i) investigating the COVID-19 induced challenges faced by women entrepreneurs in Zimbabwe, (ii) illuminating the strategies used by women entrepreneurs to survive the COVID-19 crisis, and (iii) investigating the government support needed by women entrepreneurs to recover from the pandemic. This chapter is critical considering how the COVID-19 pandemic has affected the business community and shaping the national and global economies. Given that there is no cure yet for the disease, it seems this pandemic will continue to affect economies in the near future. Against this backdrop, women entrepreneurs have to adopt newer models for the growth and sustainability of their businesses.

This chapter first presents the literature review, followed by the research methodology employed to conduct the study. This is followed by the presentation and discussion of the study findings, implications to theory and practice, and the conclusion. The chapter wraps with the limitations and proposes areas for future research.

LITERATURE REVIEW

Women and Entrepreneurship in Developing Countries

The definition and meaning of entrepreneurship has greatly evolved since the 1930s with two schools of thought dominating, namely, the innovation- and the resource-based schools of thought (Ahmad & Seymour, 2008). The innovation school of thought views entrepreneurship as an individual's ability to be innovative, to come up with a business idea and convert it into a business while the resource-based school of thought views entrepreneurship as an economic activity that relates to the strategic orientation, commitment to opportunity and resource deployment and control (Ahmad & Seymour, 2008). Entrepreneurship is widely considered a unique source of both empowerment for women and opportunities for economic growth. Nowhere is this true than in Africa: with the world's highest rate of women launching their own business (24 percent), the African continent is leading the way to promote entrepreneurship as a factor in emancipation (Rudhumbu et al., 2020). In the Southern African states, entrepreneurship appear to be an attractive career path for women whose ambition is to have a positive impact on society (Chinomona & Maziriri, 2015). Women are committed to benefitting their immediate families and believe in the ability of their businesses to make a difference (Derera et al., 2020). Women comprise a sizable proportion of the SME sector and, thus, it is important to harness their potential contribution to economic growth. Nonetheless, a gap remains between this ideal and the reality on the ground. Most female entrepreneurs, despite their determination, do not manage to expand their ventures and have to close down their businesses just a few months after they started (Chinomona & Maziriri, 2015).

Entrepreneurship among women remains meagre, with women commonly being less likely to start a business than their men counterparts (Mazonde & Carmichael, 2016). Businesses started and run by women generally are smaller, quite prevalent in the informal sector and less likely to operate in high added value sectors with growth potential (Aneke et al., 2017). This is mostly attributable to the difficulties women encounter in gaining access to credit, information, potential markets and technology, while, in the meantime dealing with family obligations and social norms in their communities (Rudhumbu et al., 2020). The attractiveness of entrepreneurship to women can be altered by rules and policies that influence the regulations and costs associated with owning a business (Manolova et al., 2017). Zimbabwe is a patriarchal society, with men having more (social) rights to ownership of resources and decision-making authority (Matondi, 2013). This is despite a great deal of legislation around women's rights having been embedded into the 2013 Constitution (Gaidzanwa, 2016), which has resulted in a female representation in parliament of 33%. The professional networks that women assemble and an encouraging ecosystem are critical (Mitra & Basit, 2019). Acknowledging confronts that women entrepreneurs face in Zimbabwe, the government has taken several steps to provide equal opportunities and a level playing field (Mazonde & Carmichael, 2016). In this regard, several independent bodies have been working, such as the Small and Medium Enterprise development Cooperative (SMEDCO), Women in Business Zimbabwe, Women Empowerment Bank (WEB) to name a few. These regulatory bodies help women entrepreneurs' access microfinance, exploit market opportunities and administrative support to run the business successfully. The outbreak of COVID-19 pandemic has challenged the conventional women entrepreneurial activities and indeed influence their sustainability.

COVID-19 Induced Challenges Faced by Women Entrepreneurs

COVID-19 pandemic triggered unexpected crises, which were beyond the imaginations of a common man (Chaora, 2020; Mahat, Mahat & Mustafa, 2021). It changed the order of routine life and the business world. In this challenging condition, the survival of women-owned entrepreneurial ventures is at high risk. Tembo (2020) notes that COVID-19 has compounded an already bad situation in African women entrepreneurs that were already struggling with poor infrastructure, lack of financial access, to name a few. This section explores the COVID-19 induced challenges faced by women entrepreneurs. According to the UNCTAD (2020), the COVID-19 pandemic has both longer-term and shorter-term impacts on women entrepreneurs.

The International Trade Centre (ITC) (2020) notes in its special report on COVID 19 and women entrepreneurs that one in five entrepreneurs face the possibility of going bankrupt and shutting down completely after three months due to lockdowns and supply chain disruptions. The report additionally notes that small women-owned businesses have lower operational cash flows, lower capacity utilization, and are more sensitive to a disruption in supply chains. Bar Am, Furstenthal, Jorge and Roth (2020) have indicated the crisis will fundamentally change the way women entrepreneurs do their business in the next five years. Many women-owned businesses seem to be financially stressed (Global Entrepreneurship Monitor (GEM), 2020. In another study, Mhlanga and Ndhlovu (2020) established that about 25 percent of businesses have outstanding loans, and less than half of them were able to make timely loan payments. Mhlanga and Ndhlovu (2020) further note that about half of the operational businesses are also using their savings to cover expenses. The survey by Diana International Research Institute (DIRI) (2020) reported that the majority of women-owned ventures in the United States of America reported a sharp decrease in sales revenue due to the COVID-19 pandemic. The suspension of important social and religious events during the lockdown set off a ripple effect of negative consequences. Sales revenue dropped, profits decreased, as orders were canceled and stockpiled up (Chaora, 2020). As the COVID-19 economic shock moves through the population, consumers are adjusting their spending habits to cut back on non-essential goods and services (Bar Am et al., 2020).

The significant decrease in demand characteristic for the years 2020 and 2021, where consumers are purchasing only the basic products/services, certainly have derogated the locus of women entrepreneurs concentrated mostly in the service sector (Moyo, 2020). In general, it seems that the most affected by the COVID-19 pandemic are the women entrepreneurs in the service industry (OECD, 2020b). Women entrepreneurs were forced to suspend temporarily their business operations due to the special regulation of the Government of Zimbabwe (Moyo, 2020). World Bank Group (2020)'s Ethiopia study established that as of June 2020, 60% of the sampled women-owned ventures were operational, while 40% had either permanently or temporarily closed. Of those that had closed, approximately 43% were operating just before the COVID-19 induced lockdown in Ethiopia. Bartik, Bertrand, Cullen, 2020; Brown, Rocha and Cowling (2020) add that the majority of women entrepreneurs have temporarily ceased trading since the lockdown as there are at risk of running out of their cash reserves. In addition to government regulations, a majority of women entrepreneurs had to reduce the scope of their business due to the lack of resources (Bartik, Bertrand, Cullen, 2020) at the same time organizing their work processes in line with the COVID-19 lockdown measures such as maintaining physical social distance, and similar protection and sanitizing. Chaora (2020) concludes that the majority of women entrepreneurs who temporarily closed their businesses are considerably more pessimistic about their ventures' prospects, and those who are still operating are not optimistic

According to Beraha and Djuričin (2020), due to the COVID-19 pandemic, women entrepreneurs are failing to access their supply chain partners and markets. In the same spirit, Gupta (2020) notes that in India, women entrepreneurs' access to customers and markets have been significantly disrupted through various, national, regional, and international lockdowns and travel restrictions. The situation has worsened given the fact that women entrepreneurs faced challenges in accessing supply chains even before the COVID-19 pandemic (World Economic Forum (WEF), 2020). Abraham (2020) contends that travel restrictions have forced closures across many sectors, and in many instances, women entrepreneurs have been physically cut off from their customer base. For the few women entrepreneurs who export their products, it is not easy to avoid the negative effects of the COVID-19 crisis caused by the closing of the borders between countries, especially non-EU countries, and interruption of the supply chains (OECD, 2020a). The majority of women entrepreneurs who import their products have resorted to terminating their orders before they had to supply (Bartik et al., 2020). Musvanhiri (2020) notes that many African women entrepreneurs have challenges in getting supplies from countries such as China. This had a severe trickle-down effect on customers who had to deal with cancellations as supply chains were disrupted, and movements were restricted for both women entrepreneurs and their customers (Chaora, 2020).

During the COVID-19 pandemic, the working conditions became more difficult for women entrepreneurs, as they witnessed a drastic impact on their lives. The majority of women failed to manage their business, household chores, and childcare (Mustafa et al., 2021). More specifically, women entrepreneurs struggle to adapt their mindset to the current challenge and manage their fears, personal stress, and concerns about the business (Shafi, Liu & Ren, 2020). In Pakistan, Mustafa et al. (2021) established that the COVID-19 outbreak puts an exogenous shock and immediate impact on women entrepreneurs' personal lives as they work out means to save their businesses. Mishra and Rampal (2020) add that the pandemic is the most unusual event of the world that never happened before and this makes it harder for women entrepreneurs to make the time-sensitive and difficult decisions that are necessary to steer the businesses to greater heights. Women entrepreneurs must also manage the concerns and stress of their employees (Sangem, 2020).

The review of literature shows that COVID-19 has forced a large number of women entrepreneurs to lose their income. As a result, women entrepreneurs faced social, economic, and mental challenges, as a result of the pandemic. However, women entrepreneurs continue to show resilience as they develop and implement strategies to save their businesses. The following section discusses some of the strategies that women have adapted to survive the COVID-19 crisis.

Strategies to Survive the COVID-19 Crisis

The current COVID-19 crisis has triggered uncertainty among market actors (Sharma et al., 2020). How women entrepreneurs cope with the crises has not attracted much research (Sangem (2020). Research has shown that, unlike their male counterparts, women entrepreneurs are under-capacitated to create the preconditions for a quick recovery from a crisis (Derera et al., 2020). Women entrepreneurs have adopted several strategies to confront the ramifications of the crisis (Thorgren & Williams, 2020). This section discusses some of the strategies implemented by women entrepreneurs across the world.

According to Sharma et al. (2020), women entrepreneurs themselves have an opportunity to take key steps internally to navigate these turbulent times. Women entrepreneurs need to reassess their business models, adapting them to become more resilient to likely changes in customer demand and supply chain disruptions (Manolova et al., 2020; Mont, Curtis & Palgan, 2021). Sangem (2020) adds that women ventures need to position themselves to take advantage of opportunities created by the COVID-19 pandemic. For instance, they may leverage technology to introduce new product offerings or delivery channels online. Women entrepreneurs need to use novel strategies to reach their customers. For instance, entrepreneurs can home deliver products to their customers, using strict safety protocols. Fabeil, Pazim & Langgat (2020) note that the use of social media marketing tools can help women entrepreneurs to move forward during the crisis, and move forward in the recovery phase, and eventually grow their business.

Mohammed (2019), in a study of women entrepreneurs, found that women entrepreneurs can survive through the COVID-19 pandemic by revisiting their business models and identifying new revenue opportunities. For instance, the women-led business should shift from product and service lines with falling demand to ones that are less affected by the crisis (UN, 2020). However, this happens where businesses are related, for example from a sit-down restaurant to food delivery. Going beyond, women entrepreneurs can shift between business sectors, for example, a handicraft manufacturer can start producing essentials such as food as people shift their demand patterns to basics. According to Mishra and Rampal (2020), women entrepreneurs can discourage the use of cash, and making hand sanitizer available in their stores, among other measures. In line with previous studies, Greene and Rosiello (2020) argue that the

COVID-19 pandemic will create opportunities for many businesses to reconfigure resources for future growth (Lim, Morse & Yu, 2020)

In exploring the impact of COVID-19 on women-led businesses, Mahat et al. (2021) concluded that one of the most pressing issues is addressing entrepreneurs' new emotional needs. Mahat et al. (2021) argued that women felt overwhelmed, distracted, or defeated by the COVID-19 pandemic. In such a case, women entrepreneurs face a kind of "analysis paralysis" where they can't make effective business decisions (Lim et al., 2020). Programs must be developed to address the psychological needs (Brickell et al., 2020). Women entrepreneurs need to create a safe space for them to share their experiences and concerns, lifting each other's spirits (Brickell et al., 2020).

Literature suggests that innovation has become a competitive necessity for all contemporary enterprises that want to survive in a world characterized by crises (Dhochak & Sharma, 2015). There is a large amount of literature supporting the significant positive relationship between innovation and business performance (Mason & Harrison, 2015; Makanyeza & Dzvuke, 2015; Yıldız, Baştürk & Boz, 2014). In times of crisis, such as those posed by the COVID-19 pandemic, the existence of small women entrepreneurial ventures is in danger (Mohammed, 2019). In these times, innovation can be a core factor behind their survival and continuity as it enhances the enterprise's future success (Adam & Alarifi, 2021). In this, Schumpeter (1942) in Adam and Alarifi (2021) declares that the enterprise's survival is strongly related to its innovation practices. Therefore, this chapter argues that the various innovation efforts exerted by women entrepreneurs for mitigating the negative effects of the COVID-19 pandemic can bring positive and sustainable results to these enterprises. Assuming that the COVID-19 lasts for a longer time and the firm's resource is limited, women entrepreneurs can respond to the crisis by innovating, which refers to strategic renewal.

Do, Nguyen, D'Souza, Bui and Nguyen (2021) conducted a study in Vietnam to explore the strategic responses SMEs can adapt to survive the COVID-19 pandemic. The study employed the Wenzel, Stanske and Lieberman's (2020) taxonomy of strategic responses to crisis (i.e., retrenchment and persevering) as the theoretical basis. Retrenchment strategy involves narrowing the scope of a firm's activities by decreasing costs, assets, product lines, number of staff and concentrating on core activities (Wenzel et al., 2020). Retrenchment strategy cuts out complexity at the same time improving transparency (Benner & Zenger, 2015). Persevering strategy is used to preserve the status quo in response to the business turnaround (Benner & Zenger, 2015). Wenzel et al. (2020:9) add that persevering strategy aims at "sustaining a firm's business activities in response to the crisis". For instance, after the September 11 2001 attacks, many firms in the USA adopted a perseverance strategy so that they enhance their performance afterward (Li & Tallman, 2011). Therefore these two strategies expectedly apply to women entrepreneurs in developing countries in the context of COVID-19.

Government Support for Women Entrepreneurs

Given the COVID-19 pandemic, Ratten (2020) advises governments to intervene and play their role to encourage women entrepreneurs to feel a sense of empowerment, contribute to family income, alleviate poverty, create jobs, and help in economic growth. In India, Gupta (2020) found that financial support was the most popular response that women entrepreneurs suggested would help them to overcome the COVID-19 induced challenges. In the same vein, Sangem (2020) adds that around the world, economic recovery packages are being developed to support women businesses to cope with the pandemic. Sangem (2020) contends that economic recovery policies and packages should be tailored to specifically respond to the needs of women entrepreneurs. In Bangladesh, Jaim (2020) notes that the government has arranged for skills and capacity-building training for women so that they can bring changes to their business management to survive the new Normal. Putting women entrepreneurs' front and center of economic policy, and ensuring equal access to finance across all the available sources, means removing discrimination from the process of applying for finance (Khan & Newaz, 2020)

There are concerns that due to a general lack of gender-disaggregated data around micro, small and medium enterprises, women's specific needs concerning financial support to keep their business afloat are not being taken into account in the design of post-pandemic recovery policies and packages (Mhlanga & Ndhlovu, 2020; DIRI, 2020). The DIRI (2020) report notes that government should focus on specific focus on the needs of women as 'genderblind' services/packages are often geared towards male-run businesses as a default. This inadvertently disadvantages women who may be less capable of accessing the support programs. A fourteen-year panel study of GEM (2020) reported that women entrepreneurship thrives when there is supportive government policy towards entrepreneurship, as well as minimal commercial and legal infrastructure.

According to Moyo (2020), governments need to extend short-term finance by providing new lending under concessional terms and delayed repayments to capable women entrepreneurs. For example, the Indian government has attempted to increase the liquidity of women entrepreneurs through state-guaranteed loans (Gupta, 2020). To better serve these women entrepreneurs, governments, financiers and other ecosystem players need to apply a gender lens approach when designing COVID responses to support SGBs (Mohammed, 2019; Adam & Alarifi, 2021). This may include leveraging women-focused organizations to increase awareness about programs these entrepreneurs might be eligible for, as well as minimizing the hurdles these businesses face when accessing financing (for example, eliminating rules around collateral requirements). It also includes designing specific financial instruments, such as moveable property lending, to better meet their needs (Rashid, S. & Ratten, 2021; Ratten, 2020).

According to Rashid and Ratten (2021), during disasters, governments need to invest more in technology because there is heavy dependence on technology and telecommunication, which helps local SMEs become accustomed to environmental changes. In this, Wenzel et al. (2020) note that a few of the pandemic winners could be in highly technical and digitally-enabled sectors such as online delivery-based organizations. As part of enhancing firm innovation, governments there is a need for digital skills training and web-based marketing (Nguyen, Ngo & Tran, 2021). Support interventions should also include technical assistance facilities to provide women-led businesses with advisory services to help them make informed decisions (UNCTAD, 2020). This will enable them to survive the pandemic while setting themselves up for post-crisis growth. Specific business support needs include scenario planning, cost optimization, liquidity management, and legal advice on contract negotiations (Chmura, 2020).

According to WHO (2020), the impact of COVID-19 on women-led enterprises will be long-lasting. However, with the right internal strategic options and government support, many women-led businesses will be able to survive these challenges and continue to be a driving force for the long-term growth of the continent.

RESEARCH METHODOLOGY

Research Philosophical Assumption

According to Saunders, Lewis and Thornhill (2019), a research philosophy guides how data about a phenomenon being studied are collected, analysed, and used. Saunders et al. (2019) note two main research philosophies, which are the positivist/postpositivist and the phenomenological/interpretivism). This study was guided by the positivism philosophy. Positivism researcher applies logical reasoning to the research so that precision, objectivity, and rigour replace hunches, experience, and intuition as the means of investigating research problems (Bryman, 2016). Thus, the author followed a strict set of guidelines in conducting the study to enable the collection of data that would produce generalisable findings. Given the quantitative nature of the research methods and data analysis methods used, the author adopted the philosophy.

Research Design

A research design is defined by Cooper and Schindler (2014) as the blueprint that is employed to gather, measure, and analyse research data. The research facilitates an effective and efficient way of conducting a research study (Saunders et al., 2019). The study adopted a descriptive study. According to Bryman and Bell (2015), descriptive research design aims at providing a simple description of phenomena and is not specifically concerned with considering why behaviour may be the way it may be. In this case, the study aimed at describing the COVID-19 induced challenges faced by women entrepreneurs and the kind of support needed for the entrepreneurs to recover from the COVI-19 pandemic. Hence, the descriptive design became the best appropriate design to achieve the study's three objectives.

Sampling Strategy

Bryman (2016) defines a target population as the collection of elements (people or objects) about which the researcher wants to make inferences and the total group of people who could be asked to participate in the research study. The women entrepreneurs who affiliate with Women in Business, Zimbabwe (WIBZ) in Zimbabwe are the target population of this study. According to the WIBZ database, there are 800 registered women entrepreneurs in Zimbabwe. For the study, the sample was drawn from the population using Krejcie and Morgan's (1970) model, acknowledged and confirmed by The Research Advisors (2006). Given a population of 800, a sample of 400 respondents was drawn at 95% confidence levels, at a 3.5% Margin of Error, which are the generally acceptable levels in research when using the Krejcie & Morgan's 1970 model. The current study employed a probability sampling technique due to its quantitative nature. Stratified random sampling, a probability sampling technique, was useful in this study because of its ability to eliminate or minimise bias by providing an equal chance of selection to the target population individuals (Saunders et al., 2019). The population for the study was divided into ten classes herein referred to as provinces. Within each province, simple random sampling was then conducted to draw study respondents. Thus, the final study participants were proportionally selected from the different sectors.

Data Collection Instrument and Procedure

Quantitative data was collected using a structured online questionnaire from a sample of 400 women entrepreneurs across Zimbabwe's 10 provinces. The questionnaire had four sections: **Section A** solicited participants' demographic data; **Section B** solicited data to answer the first research question; **Section C** solicited data to answer the second research question, lastly **Section D** solicited data to answer the last research question. A review of the literature helped to develop the questionnaire. To seek voluntary participation from the respondents, the questionnaire's introduction clarified the purpose of this study and the use of the data collected. The questionnaire used a four-point Likert scale from strongly disagree (1), disagree (2), agree (3), and strongly agree (4). Based on this scale, any mean score below 2.5 signified a negative result while any mean score from 2.5 and above signified validation result (Rudhumbu et al., 2020).

Given the issue of social distancing and the restricted mobility of the pandemic period, it was ideal to use the Survey Monkey survey. Data were collected during August and September 2021. Follow-ups through emailing on different days every fortnight were made to remind the respondents (Saunders et al., 2019). Out of the 400 women entrepreneurs, a total of 380 women entrepreneurs completed the online questionnaires. This gave an overall response rate of 95.0%. According to Saunders et al. (2016), this response rate is acceptable given the nature of this study.

However, before the final study, a pilot study using 25 unregistered women entrepreneurs was carried out to improve the questionnaire that was finally administered. The pilot study helped the investigator to assess the content of the wording used in the questions. The results of the pilot study were used to assess the reliability of the instrument. The Cronbach's alpha statistic was used to verify the reliability of the data sets. Table 1 illustrates the Cronbach's Alpha indexes for the questionnaire items.

Table 1. Reliability test results

Section	Valid Cases (N)	No. of Items	Cronbach's Alpha Coefficient	Comment
Section B	380	10	0.910	Very reliable
Section C	380	7	0.935	Very reliable
Section D	380	5	0.892	Very reliable
Average		22	0.912	Very reliable

Source: Primary data (2021)

Sekeran and Bougie (2016), scales with α coefficient between 0.80 and 0.95 are considered very reliable while those between 0.60 and 0.70 have good reliability and those 0.60 are considered to have poor reliability. Hence, the results from Table 1 show that all the measurement scales used in the study were very reliable as all the items have alpha values above 0.80 (Sekeran & Bougie, 2016).

Data Analysis

Saunders et al. (2019), data analysis involves transforming data using a wide range of statistical techniques, which are notably classified as inferential and descriptive statistics. The data was exported from Survey Monkey in an Excel format, anonymised, and saved in a password-protected file. SPSS version 25 was then used to analyse the data from the questionnaires. The data was analysed descriptively using mean, and standard deviation, and presented in the form of tables.

Table 2. Biographic characteristics of women entrepreneurs (n=380)

Characteristics	Frequency	Percentage
Demographic Profile		
Marital status		
Single	45	12
Married	133	35
Divorced	118	31
Widowed	84	22
Total	**380**	**100**
Age		
≤ 30	96	25.4
31–50	163	42.9
> 50	121	31.7
Total	**380**	**100**
Education qualification		
O/A Level certificate	69	18.3
Diploma certificate	136	35.7
Degree or Post-grad. degree	175	46.0
Total	**380**	**100**
Business profile		
Number of years in operation		
2–10 years	148	38.9
11–20 years	168	44.4
Above 20 years	64	16.7
Total	**380**	**100**
Number of employees		
≤ 40	308	81
41-75	72	19
Total	**380**	**100**

Source: Primary data (2021)

PRESENTATION AND DISCUSSION OF RESULTS

Biographic Characteristics of Women Entrepreneurs

Data on the socio-demographic characteristics of the sample are presented in this section. These data are very important in social science research as demonstrated by Makanyeza (2014) in that they constitute one of the important variables used in policy formulation and recommendation. The presentation of data is illustrated in table 2.

Table 2 shows that the largest number of female entrepreneurs are married (35%), while only 12% were single. The divorced constituted 31% while the widowed constituted 22% of the study participants. The results also show that the majority (42.9%) of the respondents are aged between 31 and 50 while a few (25.4%) and (31.7%) are aged between less than 30 years and above 50 years respectively. It can be established from Table 2 that few respondents (18.3%) had basic education that is O/A level certificate while a majority (46.0%) have either a degree or post-graduate degree. The table also illustrates that 35.7% hold a diploma. The findings imply that the study sample mainly consists of educated women entrepreneurs. Results also suggest that a substantial number (44.4%) have been in business for between 11 and 20 years while 38.9% have been in business for between 2 and 10 years. Very few (16.7%) have been in business for more than 20 years. Lastly, the findings in table 2 illustrate that the majority (81%) of the sampled enterprises have less than 40 employees while very few (19%) have been 41 and 75 employees.

COVID-19 Induced Challenges Faced by Women Entrepreneurs

Table 3. COVID-19 induced challenges faced by women entrepreneurs (n=380)

COVID-19 Induced Challenges	Mean (M)	Standard Dev. (SD)
I lack access to finance	3.33	1.318
The risk of shutting down is high	3.32	1.465
I am bankrupt	3.48	1.437
I have canceled some of my orders	3.16	1.314
My performance has deteriorated	3.23	1.109
At times I would temporarily suspend business operations	3.57	1.653
I can't easily access my supply chain partners	3.45	1.327
I have difficulties accessing my target market	3.11	1.401
The legal and regulatory environment has negatively affected my business	1.12	1.017
I don't have the necessary technology infrastructure to support online marketing	2.81	1.451

Source: Primary data (2021)

Table 3 shows that the major COVID-19 induced challenges women entrepreneurs in Zimbabwe face are inaccessible supply chain partners (M = 3.45, SD = 1.327), lack of finance (M=3.33, SD=1.318) bankruptcy (M = 3.48, SD = 1.437), risk of shutting down (M = 3.32, SD = 1.465), temporary suspension of business (M=3.57, SD=1.653), order cancelling (M = 3.16, SD = 1.314), and reduced financial performance (M = 3.23, SD = 1.109). Moderate challenges that women entrepreneurs face include inaccessible markets (M = 3.11, SD = 1.401), Lack of technology infrastructure to support online marketing (M = 2.81, SD = 1.451). The legal and regulatory environment is perceived as not a challenge as it is viewed as conduces (M = 1.12, SD = 1.017). From the above, it can therefore be concluded that the greatest of all challenges that women entrepreneurs face are bankruptcy and temporarily shutting down while the least of worries they have is the legal and regulatory environment.

Results illustrate that women entrepreneurship in Zimbabwe faced a multiplicity of challenges due to the COVID-19 pandemic. Chief among the challenges were: inability to access finance, bankruptcy, having to temporarily shut down the business, and difficulties in accessing supply chain partners. These findings validate the previous findings (Moyo, 2020; WBG, 2020; Bartik et al., 2020; Brown et al., 2020; Chaora, 2020; Beraha & Djuričin, 2020; Gupta, 2020; Abraham, 2020). Mahat et al. (2021) observe that the COVID-19 pandemic triggered unexpected challenges, which are even beyond the imaginations of many. For instance, Tembo (2020) reports that many women entrepreneurs in developing African countries do not have technology that supports online marketing.

The empirical findings support claims by the ITC (2020) that the majority of women entrepreneurs face high chances of going bankrupt, as some have temporarily shut down due to the COVID-19 induced lockdowns (Moyo, 2020). Findings show that finance is a major challenge among women entrepreneurs. The DIRI (2020) reported a sharp decrease in sales revenue and profits, as orders were canceled and stockpiled up (Chaora, 2020). Consistently, the GEM (2020) reported that many women-owned businesses are financially stressed. As a result, more than half are failing to repay their outstanding loans (Mhlanga & Ndhlovu, 2020). Thus, the COVID-19 induced challenges are likely to profoundly change the way women-led businesses are operated in the coming future (Bar Am et al., 2020). In India, Gupta (2020) established that due to the COVID-19 induced lockdowns and travel restrictions, women entrepreneurs' access to markets was significantly disrupted. Not only that, findings support the claim that women entrepreneurs are failing to access important supply chain partners (WEF, 2020; Abraham, 2020), thus the majority of women entrepreneurs ended up canceling orders and terminating business contracts (Bartik et al., 2020; Musvanhiri, 2020). Bomani and Derera (2020) suggest that much of the challenges faced by women entrepreneurs could be because women are not accorded the same opportunities as their male counterparts in terms of the training and skills acquisition required to successfully run a business.

Strategies to Survive the COVID-19 Crisis

The second objective aimed at establishing some of the strategies adopted by women entrepreneurs to cope with the COVID-19 induced challenges. The findings in table 4 indicate that women entrepreneurs have adopted various strategies to confront the ramifications of the crisis, despite being under-capacitated (Derera et al., 2020). Table 4 shows the coping strategies that women entrepreneurs used in trying to survive through the COVID-19 induced challenges.

Table 4. COVID-19 coping strategies (n=380)

Strategies to Survive the COVID-19 Crisis	Mean (M)	Standard Dev. (SD)
I had to review my business model and adapt it to become more resilient	3.32	1.212
I had to leverage technology to introduce new delivery channels online	3.43	1.364
I shifting to other business sectors which were less affected by the pandemic	3.08	1.207
I had to share my experiences and concerns with others so that I was less emotionally affected	3.10	1.214
I have become innovative; I use social media to market my products	3.51	1.269
I had to cut down costs by the number of employees	3.67	1.127
Despite challenges, I had to persevere	2.35	1.143

Source: Primary data (2021)

The majority of the respondents indicated that they had to cut down costs (M = 3.67, SD = 1.127), leverage technology to introduce new delivery channels online (M=3.43, SD=1.364), review their business model, and adapt to become more resilient (M = 3.32, SD = 1.212), and becoming more innovative through using social media to market their products (M=3.51, SD=1.269). Moderate strategies that women entrepreneurs implemented include shifting to other business sectors which were less affected by the pandemic (M = 3.08, SD = 1.207), and sharing their experiences and concerns with others so that there are less emotionally affected (M = 3.10, SD = 1.214). From table 4 above, it can be seen that the least applied strategy was perseverance (M=2.35; 1.143).

The adoption of these strategies is evidence that women entrepreneurs have internal ways to navigate through these turbulent times, instead of waiting for the government (Sharma et al., 2020). The findings are consistent with earlier findings across the globe ((Manolova et al., 2020; Mont et al., 2021; Sangem, 2020; Fabeil et al., 2020; Mishra & Rampal, 2020; Greene & Rosiello, 2020; Lim et al., 2020). The finding on cutting down costs is in agreement with the results of a study conducted by Sangem (2020) that the retrenchment strategy cut costs and as well as improving transparency (Benner & Zenger, 2015). Similarly, Lim et al. (2020) observed that women entrepreneurs need to reconfigure resources for future growth. As such, the pandemic has created many opportunities for many women-led businesses to cut costs (Greene & Rosiello, 2020).

The study found that some women entrepreneurs have shifted to other business sectors which are less affected by the pandemic. This finding is consistent with other findings, for instance, the UN (2020) observed that women-led businesses are shifting from product and service lines with falling demand to ones that are less affected by the crisis. Thus, a majority have, in this COVID-19, revisited their business models to identify new revenue opportunities (Manolova et al., 2020). The use of innovative marketing tools such as social media applications was also supported by Mason and Harrison (2015) and Yıldız et al. (2014). Specifically, Adam and Alarifi (2021) established that in these times, innovation is a critical factor behind the survival and continuity of women entrepreneurs. Findings also illustrate that women entrepreneurs are in this pandemic are aiming at just sustaining their business activities. This is mainly because they don't have the resource to renew their business not to take advantage of other opportunities presented by the pandemic (Moyo, 2020).

Government Support for Women Entrepreneurs

The last research question aimed at establishing the government support that women entrepreneurs expect. Findings illustrate that the majority of women entrepreneurs expect the government to offer accessible financial support (M=3.85, SD=1.212) and arranging for skills and capacity-building training in response to the new normal (M=3.68, SD=1.029). More so, study respondents expect the government to develop economic recovery policies and packages that are tailored to specifically respond to the needs of women entrepreneurs. Similarly, Ratten (2020), in Europe observed that women entrepreneurs expect their governments to intervene when they face pandemics such as the COVID-19. These findings are consistent with other earlier findings, for instance, Bomani and Derera (2020) recommended that the government of Zimbabwe set aside policies and programs for women entrepreneurs specifically while in Asia, Sangem (2020) contends that recovery policies and packages should address specifically respond to the needs of women entrepreneurs. It is interesting to note that the majority of women expect funding to be provided for them to survive the pandemic. This finding is consistent with earlier findings, for instance, Moyo (2020) in Zimbabwe and Gupta (2020) in India agree that governments should extend short-term finance and increase the liquidity of women entrepreneurs through state-guaranteed loans respectively.

Table 5. Government support for women entrepreneurs (n=380)

Government Support for Women Entrepreneurs	Mean (M)	Standard Dev. (SD)
The government must provide readily accessible financial support	3.85	1.212
Government must develop economic recovery policies and packages that are tailored to specifically respond to the needs of women entrepreneurs.	3.52	1.231
The government should arrange for skills and capacity building training in response to the new normal	3.68	1.029
Government need to invest more in technology because there is heavy dependence on technology and telecommunication	2.95	1.101
Government to provide technical assistance facilities to women-led businesses	3.05	1.342

Source: Primary data (2021)

However, to a lesser extent, study respondents expect the government to invest more in technology because there is heavy dependence on technology and telecommunication (M=2.95, SD=1.101), and the provision of technical assistance facilities to women entrepreneurs (M=3.05, SD=1.342). These results help to validate earlier findings. For instance, Rashid and Ratten (2021) claim that the state has to invest intensively in technology however this will only benefit sectors that are heavily dependent on technology and telecommunication. The provision of technical assistance facilities to women entrepreneurs is also supported by Nguyen et al. (2021). Overall, the findings illustrate that women entrepreneurs expect the government not to equate them with their male counterparts. This is evidenced by women entrepreneurs expecting the state to come up with policies specifically designed for them.

SUMMARY AND CONCLUSION

This study is, to the best knowledge of the author, the first COVID-19 induced challenges of Zimbabwean women entrepreneurs and their strategic options to survive the pandemic. Since women entrepreneurship sector form one of the most sensitive economic sectors in times of instability, and the sector in less developed economies is more vulnerable to crises (Moyo, 2020), this chapter provides some valuable insights. It is evident that COVID-19 pandemic has placed Zimbabwe's women entrepreneurs in a new crisis. The chapter illustrates that women entrepreneurs have been severely affected by the COVID-19 outbreak and the national lockdowns. A key finding is that the COVID-19 induced challenges faced by women entrepreneurs in Zimbabwe include but are not limited to: inaccessible supply chain partners, and markets, lack of finance to support firm innovation, bankruptcy the risk of shutting down.

Based on the results of the study, the chapter concludes that although women entrepreneurs are facing a multiplicity of COVID-19 induced challenges in Zimbabwe, limited access to finance is the greatest challenge women entrepreneurs are facing, despite the availability of numerous sources of finance from banks, non-governmental organisations to government agencies such as the Ministry of Women Affairs, Gender and Community Development (GoZ, 2020). This echoes previous studies on women entrepreneurship and the COVID-19 pandemic (e.g. Mahat et al., 2021; Gupta, 2020; Musvanhiri, 2020) and supports earlier arguments regarding the severe impact of COVID-19 on women entrepreneurship (Abraham, 2020; Bartik et al., 2020). Besides, Zimbabwean women entrepreneurs are aware of the need for strategising, as they have implemented several strategic responses to survive the pandemic. Key findings illustrate that women entrepreneurs have adopted tactics to cut down costs, leveraged technology to introduce new delivery channels online. This is evidence that women entrepreneurs have reviewed their business models to become more resilient. The chapter concludes that Zimbabwean women entrepreneurs have chosen three basic strategic management strategies to respond to the COVID-19 induced economic shock, which is, persevering, retrenchment, and innovating. Out of these, retrenchment was the most adopted strategic direction by the women entrepreneurs, followed by innovation, and persevering, respectively. These findings suggest that the majority of women entrepreneurs in Zimbabwe concentrate on formulating and implementing both short and medium-term economic responses to crises. The pandemic could facilitate a restructure in the women entrepreneurship sector as well as encouraging a transformation of the Zimbabwean micro, small and medium enterprises towards a more sustainable direction.

Given the multitude of COVID-19 challenges faced by women entrepreneurs in developing countries, governments are racing against time to put global efforts on course to meet the Sustainable Development Goals in relation to gender equality and poverty alleviation as set out in the UN's 2030 Agenda for the Sustainable Development. Hence, women entrepreneurs expect governments to provide readily accessible financial support as well as arranging for skills and capacity-building workshops in response to the new normal. After supporting thousands of women entrepreneurs to navigate the pandemic in 2020, governments must develop economic recovery policies and packages that are tailored to specifically respond to the needs of women entrepreneurs. These findings generally highlights the important role of the government in supporting women entrepreneurs affected by crises the COVID-19 pandemic. Thus, it can be concluded that despite the many COVID-19 induced challenges women entrepreneurs face in the Zimbabwean market, there are greater opportunities for the development and growth of the women entrepreneurship sector owing to Zimbabwean regulatory environment which women may benefit from. Hence, the chapter recommends the government to provide funding as well as training in technopreneurship to be able to develop, and enhance their online business skills and knowledge. This will help them in coming up with innovative marketing strategies for use during and post the COVID-19 pandemic.

Theoretical Implications

The chapter makes important contributions to the literature relating to women entrepreneurship risk and crisis management. Essentially, it advances the knowledge and application of crisis management strategies in women-led businesses research by exploring why and how women adopt different approaches in response to pandemics such as COVID-19. Methodologically, this study is unique in its use of quantitative descriptive design. The findings can be generalised to developing countries. Even though this chapter focuses on firm level strategies during a pandemic, its findings have wider implications for research on the support programs, and governance at government level. While prior research studies reveal different types of governmental support such as investment in women entrepreneurial infrastructure, and provision of financial (Bomani & Derera, 2020; Ngoasong & Kimbu, 2018; Jaim, 2020; Moses et al., 2016; Rudhumbu et al., 2020), Zimbabwean women entrepreneurs, especially those who are registered, principally expect the provision of readily and easily accessible financial assistance. This conclusion can be explained by the undecorated impact of COVID-19 on their revenues.

Practical Implications

Empirical findings of this study have important implications for key stakeholders such as women entrepreneurs, policy maker, and the government. Given that the majority of the women entrepreneurs focus on cost-cutting measures and sustaining firms' business to survive the pandemic, it is recommended that women entrepreneurs innovate their strategy to pursue sustainable development after the COVID-19 pandemic. Women entrepreneurs need to continuously formulate and implement noble and creative strategic to adapt to the challenges imposed by the COVID-19 pandemic. On this, women entrepreneurs should develop a business plan that addresses the negative effects of the COVID-19 pandemic on their businesses after the pandemic to ensure survival. This is because the situation of women entrepreneurship in Zimbabwe after the COVID-19 pandemic will essentially differ from their pre-pandemic status. This is important as the pandemic has caused the greatest socio-economic shock among women entrepreneurs (Mahat et al., 2021). Essentially, women entrepreneurs may target more than one market at the same time restructuring their operations to ensure a successful post COVID-19 business. The need for revising business models is highlighted in the findings. Given the finding concerning women entrepreneurs' expectations for support programs, the developing country governments, and trade and commerce policymakers should make concerted efforts to support these women-led businesses. To assist these enterprises, the government needs to timely, and accurately assess the impact of the COVID-19 pandemic on these enterprises and their needs during different phases of the pandemic. Given the entrepreneurs' strong need for financial assistance, governments may provide them with financial packages such as waiving taxes, and low-interest loans. Additionally, governments must encourage non-governmental organisations to offer different categories of support to women entrepreneurs in the form of training, consultations, guidance, advice, and psychological support to help them manage the difficulties triggered by COVID-19 pandemic.

LIMITATIONS AND AREAS FOR FURTHER STUDIES

Although the chapter has significant implications for women entrepreneurs and policy makers, it has some limitations. The study focused only on women entrepreneurs in Zimbabwe, and excluded women entrepreneurs in other developing countries. Hence findings can only be generalized to those women entrepreneurs in Zimbabwe. More so, the research study should be expanded to include men-owned enterprise to establish whether men have been more successful in "handling" the COVID-19 induced challenges than women entrepreneurs. The investigator conducted a cross sectional study due to time and financial constraints. Future investigators need to conduct longitudinal studies to assess the opportunities presented by the COVID-19 pandemic. Last but not least, the study was descriptive in nature, aimed at describing the COVID-19 induced challenges, strategies adopted by women entrepreneurs, and the support government can provide to women entrepreneurs. Future studies should consider the effectiveness of the government support programs to minimize the economic consequences of the COVID-19 pandemic on the growth of women owned businesses.

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KEY TERMS AND DEFINITIONS

Challenges: Something that needs a lot of skill, energy, and determination to deal with or achieve, especially something you have never done before and will enjoy doing.

COVID-19: An infectious disease caused by a newly discovered strain of coronavirus, a type of virus known to cause respiratory infections in humans.

Entrepreneurship: The process of initiating, creating, building, expanding, and sustaining a business venture by exploiting market opportunities.

Government Support: A privilege granted by a government to private firms, households, or other governmental units in order to promote a public objective.

Strategies: Execution plans that are established along a firm's long-term business direction.

Women Entrepreneurship: This constitutes the pursuit of entrepreneurship as a career by women or the ownership and management of businesses by women.

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