

Conceptual model for overcoming the consequences of the pandemic

Mina Angelova¹, Daniela Pastarmadzhieva²

University of Plovdiv Paisii Hilendarski, Plovdiv, Bulgaria

¹Department of Management and Quantitative Methods in Economics, mina.angelova@uni-plovdiv.bg

²Department of Political Sciences and National Security, daniela.pastarmadzhieva@uni-plovdiv.bg

Abstract: *The paper presents a conceptual model for overcoming the consequences of the pandemic based on summarized results from research focused on societal challenges in Bulgaria caused by COVID-19. The study aims to submit a unified methodological framework for application by experts in researching, analyzing, and bench-marking the entrepreneurs' activity and suggestions for applicable and reasonable measures in the field of business development during the pandemic situation caused by COVID-19. The findings of this research can assist managers in national institutions and business organizations to recognize the strengths and weaknesses of different measures which influence creativity and innovation and focus on proactive suggestions to overcome the negative consequences of the pandemic.*

KEYWORDS: ENTREPRENEURSHIP, CONCEPTUAL MODEL, METHODOLOGICAL FRAME, BULGARIA, PANDEMIC

1. Introduction

The COVID-19 pandemic provided evidence that public authorities need a set of tools to react rapidly and effectively in crisis situations. Nowadays, crisis management is a key topic in research in different fields of sciences focused on proactive suggestions to overcome the negative consequences on the economy, political environment, social environment, entrepreneurship ecosystems, etc. In our opinion, this is a critical juncture because the risk of a slowdown in growth is the possibility of the economic crisis spreading to the financial system. A study of the conditions that can sustain the crisis in a subsystem is another possibility.

The COVID-19 pandemic is currently influencing people's behavior on all continents, with economic, health, political, social, psychological, and cultural implications. It raises many issues, the most important of which is the approach that governments must take to combat the pandemic's effects. **The purpose of this paper** is to present a unified methodological framework for experts to use in researching, analyzing, and benchmarking pandemic consequences. **The research focus** is to identify different measures for overcoming the negative effects caused by the pandemic through broad interdisciplinarity, based on the summarized research results of a team of experts.

The dissemination of COVID-19 and the measures implemented have resulted in a stronger role for science and the possibility of developing a conceptual model at the national level that is adequately applied to prevent and/or quickly overcome the consequences of this type of crisis. An interdisciplinary team of researchers could successfully elaborate on this as a prerequisite for the development of all major scientific fields in which Bulgaria can build the necessary scientific capacity. **The goal of this paper** is to summarize the findings of an interdisciplinary team of experts working on a project called "*Economic Dimensions of the COVID-19 Pandemic: The Impact of Psychological, Legal and Socio-political Factors and Approaches for Overcoming their Negative Effects*" funded by Bulgarian National Science Fund. The paper presents a methodological framework for elaborating a conceptual model based on the summarized suggestions by the team of experts focused on applying measures for reviving the economy and overcoming the social and financial pandemic consequences.

The researchers' **thesis** is that creating a conceptual model for overcoming the consequences of the pandemic will contribute to better analyzing the development of the Bulgarian economy. In line with this, the proper use and implementation of specific methods and techniques for investigating the impact of economic, psychological, legal, and socio-political factors correlate to the establishment of a multifaceted study of the post-crisis situation in Bulgaria and how it is assessed by society and business. Affidavit of support of the above-mentioned, the paper contributes to a better

understanding the necessity of taking right decisions in crisis situations caused by pandemics.

The paper is organized as follows: after the introduction, the methodological framework for investigating societal challenges in pandemic situations is described in the second part. This analysis paves the way for the third section, which focuses on approaches for mitigating the negative effects of economic, psychological, legal, and sociopolitical factors. The paper concludes with the development of a conceptual model based on the summarized conclusions and recommendations for future research in the field of investigating the measures and their potential application in Bulgaria.

2. Methodological Framework

2.1. Research Design

The green shoots of the so called "triangle of knowledge" (science-business-education) give an economy its vitality. They give rise to new products and services, fresh applications for existing products and services, and new ways of doing business. The pandemic situation puts many issues on the agenda, but the most important is how to overcome the crisis consequences and to revive the national economy. The pandemic of COVID-19 is having a significant impact on society, business, and government institutions. They are all dealing with an unprecedented crisis that is wreaking havoc on the global economy, disrupting supply chains, and transforming society. The new reality is hastening business model transformation at a faster rate than ever before in order to ensure existential survival in the event of an unexpected crisis. Established businesses that fail to adapt to changes lose market competitiveness and go out of business.

A wide range of methods are used to achieve the research goal, including historical approach, content analysis, expert evaluations, unstructured interviews, focus groups, online surveys, processing of the collected data with specialized software. The summarized Research Design is presented on scheme 1.

The effects of quarantine and social isolation on mental health and human capital qualities have a significant impact on their professional realization. In response to changing policy environments, business organizations may be required to regulate measures. This includes using these tests to challenge assumptions (such as recovery times) and to develop methods to measure resilience, response, recovery, and other key capabilities required to anticipate, withstand, recover from, and adapt to adverse conditions. Furthermore, public institutions must compel adequate measures to revive the economy. At this critical juncture, these ideas can serve as a framework for taking responsible action.

Scheme 1. Research Design

Interdisciplinary approach (literature review and research methods)	Economics	Secondary analysis of empirical data Desk Research
	Psychology	Secondary analysis of empirical data Structured interview using own questionnaire Triangulation
	Entrepreneurship	Two sociological representative studies were conducted - with persons, residents of the city of Plovdiv, and with enterprises registered on the territory of the city of Plovdiv Unstructured (in-depth) interviews
	Law	Retrospective analysis Secondary analysis of empirical data
	Sociology and Politics	Desk Research Secondary analysis of empirical data

Source: Created by the authors

2.2. Economic Measures and Suggestions for Overcoming the Negative Effects of COVID-19

Based on the necessity to study the impact of the pandemic on the economic system in its state and social dimensions, the results of the analysis enable the following conclusions and generalizations to be made [1]:

- In general, it can be concluded that under the influence of the pandemic, the dynamics of the main indicators of the economic system become more volatile and difficult to manage.
- Despite Bulgaria and other EU member states' efforts to mitigate the negative effects by increasing the government deficit and debt, the situation worsens across the board.
- Due to the large fluctuations that show large deviations in each quarter, there is no clear trend as to whether the differences between the values for the EU and Bulgaria on the main indicators are increasing or decreasing.
- In general, the picture in the EU is more negative because it has more categorically reached the levels of the previous economic crisis than Bulgaria.

The necessary measures that must be taken to counteract the economic consequences correspond to the opportunities for success, which will continue to befall the brave, the innovative and the technologically prepared. The guidelines include the following [2]:

1. The pandemic taught us the importance of communication speed, flexibility, and adaptability.
2. Mandatory digitization of business.
3. Open and transparent communication - inside and outside the company.
4. Reduction of VAT on fuels.
5. Decrease in Central Banks money printing rates because there is a lot of money on hand but few assets.

2.3. Institutional Distrust and Lack of Personal Action as Factors Predetermining the Emergence of Mental Problems in the Conditions of the Coronavirus Pandemic

Social constraints have had their impact first and foremost on the mental health and well-being, mental adjustment and functioning of people around the world [3]. The empirical results obtained by structured interview with business representatives and citizens direct attention to a core mission of psychological science, namely the care of people's mental health and well-being [4].

1. Introducing more effective and accessible mechanisms for providing support, both in personal life and in a purely professional context.

2. Changing the ways in which government and other public institutions generally manage the pandemic.

3. Counseling and psychological intervention at the organizational level, in the presence of identified problems and difficulties in the general psychological climate, team interactions or vertical communication.

4. Developing of an online platform for mental health, highlighting the need to monitor the established dynamics, worrying the situation in the context of social skills, communication, self-expression skills [2].

5. Building a psychological center in universities to work with students and employees.

2.4. Legal Analysis based on Main Provisions from Strategic Documents of Bulgaria and the EU Concerning Crisis Situations

To limit the spread of the virus, several countries have imposed severe measures such as quarantines, border closures and domestic travel restrictions. But these restrictions and the introduction of a state of emergency raise many legal questions, and many courts, organizations and authors have embarked on the search for answers to these questions [5]. The COVID-19 pandemic has marked a few problems in the way of regulation in several sectors and the application of the regulatory framework in Bulgaria [4]. Based on the experience gained, the following suggestions can be made for dealing with future similar situations:

1. Clarity of by-laws
2. Definitions and specific forms of "state of emergency" in the broad sense of the word should be clearly defined in a legal act, drawn up in a significantly more understandable and accessible language for citizens.
3. Coherent and systematized provision of information regarding amendments to normative acts.

2.5. Socio-Political Factors and Approaches to Overcome the Negative Effects of the Crisis

Political scientists and sociology experts are unanimous that crisis communication was not successfully implemented in Bulgaria. It is necessary to build a working communication campaign with short speeches by experts, not long press conferences. In this case, it is noticeable that the state did not engage communication experts for this process. The aim is for the strategies to be specifically targeted at the different groups. There are no distributed brochures, posters, there are no short clips to introduce the nation to the important moments.

Building trust between political representatives and citizens is key in governance in general and in crisis situations in particular. In the context of a pandemic, the medical measures taken by governments should be accompanied by an adequate communication strategy that maintains trust between citizens and institutions and prevents the dominance of fake news in the public

space. Recommendations going forward as an effective measure to deal with crises include [4]:

1. To work based on effective communication with the support of experts and not to cause panic among people.
2. To increase respect for institutionality and experts, which will create generational sustainability in science.
3. To build a regulatory framework for crisis management.
4. The state should introduce cybersecurity measures and make cybersecurity training mandatory for all students.
5. The communication strategy should be tailored to the specific national characteristics of the society [6].

2.6. Ensuring Entrepreneurship and Entrepreneur Initiative during a Pandemic

The COVID-19 pandemic is a difficult time for businesses and citizens alike. The project team conducted an empirical study on the pandemic's impact on entrepreneurship and entrepreneurial initiative. Whether and how is possible to start a new business during a global crisis, how existing organizations develop during this pivotal period and what are the good practices shared by entrepreneurs were the focus of their research [7]. Two representative sociological studies were conducted using own questionnaire - with persons, residents of the city of Plovdiv, and with enterprises registered on the territory of the city of Plovdiv, Bulgaria. The collected data was gathered in the period February 22 - March 28, 2022. A crisis is a time when the management team's entrepreneurial abilities are put to the test. On the one hand, difficult conditions cause many businesses to fail, but they also provide opportunities to find niches, look for more and more innovations, use hidden opportunities, and turn threats into strengths. The suggested measures focused on entrepreneurship can be summarized as follows:

1. Applying "good management practices" based on knowledge and lifelong learning strategy. All of this is important in crisis situations and managers should focus on proactive behavior to help their businesses overcome the crisis.
2. Continuous search for new methods, implementation of innovations and improvement of products and/or services that enterprises offer.
3. The management to focus attention on increased development of 5G infrastructure, new applications, and utilities; on the rapid growth of AI, robotics, the Internet of Things, and industrial automation; on augmented reality and virtual reality - new technologies that are part of everyday life, from entertainment to business; on startups leading micro mobility innovation [9].
4. Managers to make environmental, social and governance considerations a core feature of the business model.
5. Optimizing the relation science-business-education focused on common projects, R&D and innovation development that will hence the national competitiveness.
6. Introducing new motivational policies in enterprises focused on the new working models. Management through motivation in uncertain and crisis situations is one of the best practices for surviving together with the team [4].
7. Using an innovative model of a flexible methodology [7] that could be used by academic and business representatives, central and local government institutions, and private stakeholders.

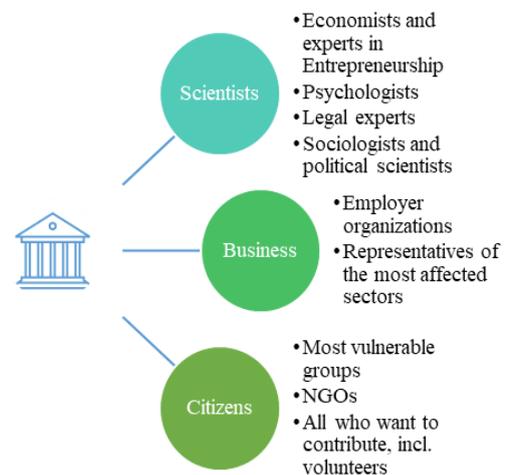
3. Conceptual Model for Overcoming the Consequences from the Pandemic

The Conceptual Model for overcoming the consequences of the pandemic summarizes the findings of an interdisciplinary team of experts working on a national project. The correlation between the

mentioned measures and the approbation of the research design can serve as a good management practice fighting crisis situations. Scheme 2 presents the Conceptual Model and its connection to stakeholders.

The first and most important is that when making decisions the government needs to consider the scientific expertise, the needs and proposals of the Business and the citizens. Having the knowledge about the needs and expectations of the stakeholders the government will take more adequate and fast decisions.

Scheme 2: Conceptual Model



Source: Created by the authors

4. Conclusion

The findings of this research can assist the managers in national institutions and business organizations to recognize the strengths and weaknesses of different measures which influence creativity and innovation and focus on pro-active suggestions to overcome the negative consequences from the pandemic. The summarized suggestions for overcoming the pandemic consequences given by an interdisciplinary team of experts and the developed conceptual model can serve public institutions as a fundamental approach to force adequate measures to revive the economy.

The elaborated and approbated in practice research design can be applied in future study on the topic and, moreover, it could be used in different crisis scenarios that need fast and adequate actions by managers from public and private organizations. The concrete measures can be systematized and proposed to the responsible institutions of local and central government, serving as the foundation for developing a pandemic response strategy.

ACKNOWLEDGEMENTS

This paper is part of a project № KP-06-DK2/7/30.03.21, financed by the National Science Fund, Ministry of Education and Science, Bulgaria.

REFERENCES

1. Madzhurova, B., Stoyanova, D., Raychev, S. (2022) *Challenges to the economy during the Covid-19 pandemic and digital transformation*, IV International Scientific and Practical Conference "Modern Management Trends and Digital Economy: from Regional Development to Global Economic Growth" (MTDE 2022), SHS Web Conf. Volume 141, 2022. DOI <https://doi.org/10.1051/shsconf/202214101010>.
2. Proceedings of the Second International Scientific Conference Innovations and Competitiveness "The world through the prism of the COVID-19 pandemic"; scientific

- editor: assoc. prof. M. Angelova and assoc. prof. D. Pastarmadzhieva, Plovdiv University Press, ISSN 2738-8018, online available at <https://conf.prowis.online/proceedings>
3. Hristova, E. (2021) Personal perceptions of (in)security. *Electronic scientific journal Scientific Atlas*, No 1: ISSN 2738-7518. Online [Microsoft Word - 8 Nauchen atlas Elitza Hristova.doc \(scientificatlas.com\)](#)
 4. Angelova et al. (2023) *Economic Dimensions of the COVID-19 Pandemic: The Impact of Psychological, Legal and Socio-political Factors and Approaches for Overcoming their Negative Effects*, monograph, Plovdiv University Press, ISBN, стр. под печат (available in Bulgarian).
 5. Rogoshev, T. (2021) *Restrictions on the right to freedom of movement during pandemics*, Proceedings of Annual University Scientific Conference vol 7: 253-262, ISSN 1314-1937.
 6. Pastarmadzhieva, D. & Angelova, M. (2021) *Covid-19 Pandemic as a Contemporary Challenge and Determinant of EU Citizens' Priorities*, SHS Web of Conferences 120, <https://doi.org/10.1051/shsconf/202112001010>.
 7. Angelova, M.N.; Pastarmadzhieva, D.D.; Naydenov, A.T. Determinants of the Entrepreneurial Initiative during a Pandemic: The Case of Plovdiv. *Sustainability* 2022, 14, 13753. <https://doi.org/10.3390/su142113753>.
 8. Pastarmadzhieva, D.D.; Angelova, M.N.; Raychev, S.A.; Madzhurova, B.P.; Desev, K.V. (2022) Ensuring Sustainability during a Crisis Using an Innovative Flexible Methodology. *Sustainability* 2022, 14, 2996. <https://doi.org/10.3390/su14052996>.
 9. Angelova, M. & Pastarmadzhieva, D. (2022) *Digitalization in the Pandemic Era: Innovative Trends and Management Solutions as a Base for Sustainable Entrepreneurship*, Yearbook of UNWE, vol. 1/2022.