

Ministry of Education and Science of Ukraine
Sumy State University
Oleg Balatskyi Academic and Research Institute
of Finance, Economics and Management

SOCIO-ECONOMIC CHALLENGES

Proceedings
of the International Scientific and Practical Conference

(Sumy, November 3–4, 2020)



Sumy
Sumy State University
2020

330.3:005(063)

S62

Editor-in-Chief

Prof., Dr. **Vasilyeva Tetyana**, Director of Oleg Balatskyi Academic and Research Institute of Finance, Economics and Management, Sumy State University

Editorial Board:

Prof., Dr. **Dyakonova Iryna**, Sumy State University, Ukraine;

Prof., Dr. **Kuzmenko Olha**, Sumy State University, Ukraine;

As. Prof., Dr. **Lyulyov Oleksiy**, Sumy State University, Ukraine;

As. Prof., Dr. **Shvindina Hanna**, Sumy State University, Ukraine;

As. Prof., Dr. **Shkarupa Olena**, Sumy State University, Ukraine;

As. Prof., PhD. **Bhola Khan**, Yobe State University, Nigeria;

As. Prof., PhD. **Dipra Jha**, School of Hospitality Business Management, Washington State University

*Approved by the Academic Council of Sumy State University
(protocol № 5, 12 November 2020)*

Socio-Economic Challenges : Proceedings of the International
S62 Scientific and Practical Conference, Sumy, November 3–4, 2020 /
edited by Prof., Dr. Vasilyeva Tetyana. – Sumy : Sumy State
University, 2020. – 511 p.

Proceedings of the International Scientific and Practical Conference "Socio-Economic Challenges" are devoted to finding a systemic solution to multidisciplinary problems in the field of modern development, management, administration of various systems, corporate social responsibility, innovation management in various fields of environmental management.

For scientists, scientists, students, graduate students, representatives of business and public organizations and higher education institutions and a wide range of readers.

330.3:005(063)

© Sumy State University, 2020

	TABLE OF CONTENTS	P.
<i>Tetiana Vasyliieva, Iryna Didenko, Vladyslav Smiiianov, Soldatenko Darina</i>	INFLUENCING THE FACTORS OF COMMUNITY HEALTH INTO THE DIFFERENTIATION OF REGIONS OF UKRAINE FOR BECOMING ILL ON COVID 19	13
<i>Tetyana Vasilyeva, Serhiy Lieonov, Nataliia Letunovska</i>	THE ECONOMIC IMPACT OF COVID-19: FORECASTING FOR UKRAINIAN REGIONS	18
<i>Yuriy Petrushenko, Natalia Zemliak, Sofia Petrenko</i>	THE IMPACT OF EDUCATION ON MIGRATION	23
<i>Serhiy Lyeonov, Aleksy Kwilinski, Denys Pudryk, Shaforost Yuliya</i>	INTERNATIONAL MIGRATION AND DEMOGRAPHIC CHANGE: BIBLIOMETRIC ANALYZING AMONG RESEARCHERS USING SCOPUS AND GOOGLE SCHOLAR	27
<i>Iryna Dehtyarova, Leonid Melnyk, Oleksandr Kubatko,</i>	SOCIO-ECONOMIC EFFECTS OF DISRUPTIVE TECHNOLOGIES	34
<i>Oleksandr Kubatko, Iryna Sotnyk, Alona Olondar</i>	ESTIMATION OF THE CORONAVIRUS CRISIS IMPACT ON THE ENERGY AND ECONOMIC SECURITY OF THE NATIONAL ECONOMY	42
<i>Oleksandra Karintseva, Oleksii Goncharenko, Mariia Myslovskaya, Oksana Hrinevich</i>	ASSESSMENT OF CONSEQUENCES OF THE VIRTUAL REALITY ECO-TOURS ADVANCING IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT AND THE COVID-19 PANDEMIC	50

THE ECONOMIC IMPACT OF COVID-19: FORECASTING FOR UKRAINIAN REGIONS¹

*Tetyana Vasilyeva, Doctor of Economic Sciences,
Serhiy Lieonov, Doctor of Economic Sciences,
Nataliia Letunovska, Ph.D.
Sumy State University, Ukraine*

The world scientific community has developed many economic and mathematical models for predicting and analysing the multidirectional impact of COVID-19 on various aspects of society. Modelling the economic consequences of a new dangerous virus for different countries has a vital role today. There is a lack of such research in Ukraine. Foreign papers, particularly from the highly-rated databases Scopus and Web of Science, show an increase in research on this topic and their citations. It is appropriate to mention specific quotes from the report of the consulting company One Philosophy Insights, which states that quarantine has affected the economy of Ukraine in different ways. The most affected were airlines, tourism, entertainment services, exhibition business. Real estate and retail trade were the least vulnerable. Furthermore, such sectors as technology, pharmaceuticals, logistics, superfood production have even benefited from the spread of the pandemic in Ukrainian regions [1].

The relationship between the degree of physical distancing during a pandemic and lost income in society is generally considered to be linear [2; 3]. However, the amount of lost income may likely be lower or higher than the level of physical distancing. One of the gaps in the literature is the regional analysis of the economic impact of pandemic shocks. The authors observe different effects of epidemics on the development of regions, which depend on how this region has been affected, its economic structure, the degree of development of the labor market, and economic ties between different activity sectors. According to the four indicators for assessing the situation with COVID-19, Ukraine is one of the regions in Europe with the most challenging situation. As of October 15, 2020, Kharkiv, Sumy, Khmelnytsky, Ternopil, Poltava, Rivne, and Zhytomyr oblasts recorded the largest outbreak of COVID-19 [4]. The spatial component is of great importance in resolving the long debate on the gradual recovery of various economic sectors. In particular, determining the extent of the impact of COVID-19 on individual regions, effective forecasting of further actions allows to more reliably justify management

¹ Implemented as part of research “Economic and mathematical modelling and forecasting of the COVID-19 influence on Ukraine development in national and regional contexts: public health factors and socio-economic and ecological determinants” (Application ID: 2020.01/0181), funded by the National Research Fund of Ukraine, 2020-2021

decisions in the field of preventive measures. Naturally, the reactivation of the national economy with mitigation, if possible, should be carried out, taking into account the development of individual regions.

The use of forecasts, especially economic and mathematical ones, has a positive effect on the prudence and future effectiveness of the government's management actions to prevent the further spread of Coronavirus. As of October 2020, about 10% of people in the world are infected. According to the modeling results, the spread of SARS-CoV-2 in mid-November 2020 will increase up to 10,000 new cases of COVID-19 in Ukraine [5]. In April 2020, the index of national business activity expectations fell for the first time to a record low of 29.9 points (for comparison in the pre-pandemic era of COVID-19 in March, this figure was 45.8 points) [6]. The reason for this was the strict anti-epidemic measures. Moreover, the services sector was the most pessimistic (24.6% of Ukraine's GDP). A significant number of companies at that time planned to lay off employees or go on vacation at their own expense. All companies have downgraded their forecasts for future sales and production in the short and medium-term. Naturally, the easing of quarantine in May 2020 somewhat improved business expectations in Ukraine. In October, the negative dynamics of this indicator one can observe again – a drop from 49.4 points to 47.8 [7]. The value below 50 points indicates the pessimistic mood of business representatives in Ukraine. One-fifth of Ukrainian families have cut spending on food. About 40% of families have stopped spending money on luxuries. According to Google Mobility Trends, the frequency of business trips remains lower than in early 2020. However, since August, people in almost all regions have become more likely to visit shopping and leisure facilities. Shopping in grocery stores and pharmacies almost reached the level of February 2020.

According to preliminary EBRD forecasts, the Ukrainian economy was to recover in the fourth quarter of 2020. Today the forecasts are more pessimistic – recovery not earlier than the second quarter of 2021. In general, next year, the Ukrainian economy will grow by only 3% [8]. The recovery of the regions of Ukraine depends on their averages and capabilities. Any prognosis may be too optimistic, as the situation with the spread of Coronavirus is too unpredictable and rapidly changing.

According to [9], there is an urgent need in Ukraine to continue a robust reform agenda, continue cooperation with the International Monetary Fund to ensure macroeconomic stability, and create economic incentives to maintain employment and stimulate the inflow of investment in regional development.

References

1. Під час пандемії 71% організацій в Україні запустили новий продукт або послугу. URL: <https://sostav.ua/publication/p-d-chas-pandem-71-organ-zats-j-v-ukra-n-zapustili-novij-produkt-abo-poslugus-86713.html>.

2. Alvarez, F.E., Argente, D., & Lippi, F. (2020). A simple planning problem for COVID-19 lockdown. National Bureau of Economic Research. Working Paper No. 26981.

3. Newbold, S.C., Finnoff, D., Thunstrom, L., Ashworth, M., & Shogren, J.F. (2020). Effects of physical distancing to control COVID-19 on public health, the economy, and the environment. *Environmental and Resource Economics*, 76, 705-729.

4. За минулу добу в Україні підтвердили 5062 нових випадки коронавірусу, загалом у країні – понад 280 тисяч заражень. URL: https://zik.ua/news/ludyna/za_mynulu_dobu_v_ukraini_pidtverdyly_5062_novykh_vypadky_koronavirusu_zahalom_u_kraini_ponad_280_tysiach_zarazhen_983723

5. У листопаді щоденна кількість нових хворих на ковід в Україні може сягнути 10 тис. – моделювання КШЕ. URL: https://lb.ua/society/2020/10/15/468171_listopadi_shchodenna_kilkist_novih.html.

6. Індекс очікувань ділової активності вперше впав нижче 30. URL: <https://ua-news.liga.net/economics/news/indeks-ochikuvan-dilovoi-aktivnosti-vpershe-vpav-nijche-30>.

7. Індекс очікувань ділової активності у жовтні знизився з 49.4 пунктів до 47.8. URL: <https://business.ua/uk/node/11211>.

8. Зануда А. (2020). Коли економіка України заживе так, як було до коронавірусу. URL: <https://www.bbc.com/ukrainian/features-54361473>.

9. Вплив COVID-19 в Україні: 87% бізнесу закликає Уряд України продовжити потужну програму реформ. URL: <http://www.visnuk.com.ua/uk/news/100020261-vpliv-covid-19-v-ukrayini-87-biznesu-zaklikaye-uryad-ukrayini-prodovzhati-potuzhnu-programu-reform>.

10. Tovmasyan, G., Minasyan, D. (2020). The Impact of Motivation on Work Efficiency for Both Employers and Employees also During COVID-19 Pandemic: Case Study from Armenia. *Business Ethics and Leadership*, 4(3), 25-35. [https://doi.org/10.21272/bel.4\(3\).25-35.2020](https://doi.org/10.21272/bel.4(3).25-35.2020).

11. Kiss, L.B. (2020). The Importance of Business Partnership on the World Wide Web. *Business Ethics and Leadership*, 4(1), 68-79. [http://doi.org/10.21272/bel.4\(1\).68-79.2020](http://doi.org/10.21272/bel.4(1).68-79.2020).

12. He, Shuquan (2019). The Impact of Trade on Environmental Quality: A Business Ethics Perspective and Evidence from China. *Business Ethics and Leadership*, 3(4), 43-48. [http://doi.org/10.21272/bel.3\(4\).43-48.2019](http://doi.org/10.21272/bel.3(4).43-48.2019).

13. Yelnikova, J., Kwilinski, A. (2020). Impact-Investing in The Healthcare in Terms of the New Socially Responsible State Investment Policy. *Business Ethics and Leadership*, 4(3), 57-64. [https://doi.org/10.21272/bel.4\(3\).57-64.2020](https://doi.org/10.21272/bel.4(3).57-64.2020).

14. Makarenko, I., Sirkovska, N. (2017). Transition to sustainability reporting: evidence from EU and Ukraine. *Business Ethics and Leadership*, 1(1), 16-24. Doi: 10.21272/bel.2017.1-02.
15. Mamun, M. Z. A., Khan, M. Y. H. (2020). A Theoretical Study On Factors Influencing Employees Performance, Rewards And Motivation Within Organisation. *SocioEconomic Challenges*, 4(3), 113-124. [https://doi.org/10.21272/sec.4\(3\).113-124.2020](https://doi.org/10.21272/sec.4(3).113-124.2020).
16. Летуновська Н.Є. (2017). Аналіз передумов формування регіональної конкурентоспроможності в соціально-економічній сфері. *Інфраструктура ринку*, 3, 98-103.
17. Gyan Chandra Kashyap, Parul Puri, Shri Kant Singh (2020). Respiratory Health Upshots due to Contaminated Living Environment: A Cross-Sectional Study of the Industrial Belt of Kanpur City, India. *SocioEconomic Challenges*, 4(1), 17-27. [http://doi.org/10.21272/sec.4\(1\).17-27.2020](http://doi.org/10.21272/sec.4(1).17-27.2020).
18. AUgbaka, M., Awujola, A., Shcherbyna, T. (2019). Economic Development, Foreign Aid and Poverty Reduction: Paradigm in Nigeria. *SocioEconomic Challenges*, 3(4), 5-12. [http://doi.org/10.21272/sec.3\(4\).5-12.2019](http://doi.org/10.21272/sec.3(4).5-12.2019).
19. Ágnes, U. T., Ádám, H., Balázs, G., Zoltán, S. (2018). Movie Induced Tourism and Its Effects on Settlements, a Literature Study. *SocioEconomic Challenges*, 3(2), 26-36. DOI: 10.21272/sec.3(2).26-36.2018.
20. Kostel, M., Leus, D., Cebotarenco, A., Mokrushina, A. (2017). The Sustainable Development Goals for Eastern Partnership Countries: Impact of Institutions. *SocioEconomic Challenges*, 1(3), 79-90. DOI: 10.21272/sec.1(3).79-90.2017.
21. Singh, S. N. (2019). The Analysis of Value Added Tax (Vat) to Increasing Government Revenue in Ethiopia. *Financial Markets, Institutions and Risks*, 3(2), 115-127. [http://doi.org/10.21272/fmir.3\(2\).115-127.2019](http://doi.org/10.21272/fmir.3(2).115-127.2019).
22. M. Sokolov, An. Mykhailov, D. Khandurin. (2018). Distribution of investment resources: where is agriculture in the Ukraine's economy? *Financial Markets, Institutions and Risks*, 2(3), 38-42. DOI: 10.21272/fmir.2(3).38-42.2018.
23. Bozena, S., Vynnychenko, N. (2018). Evaluating of the financial equalization system in Ukraine. *Financial Markets, Institutions and Risks*, 2(1), 25-36.
24. Antonov, M., Lopa, L. (2017). Regulation of the state debt stability. *Financial Markets, Institutions and Risks*, 1(1), 87-97. [http://doi.org/10.21272/fmir.1\(1\).87-97.2017](http://doi.org/10.21272/fmir.1(1).87-97.2017).
25. Sysoyeva, L. (2017). Monetary and financial integration in EU: Convergence or divergence?. *Financial Markets, Institutions and Risks*, 1(2), 5-11. DOI: 10.21272/fmir.1(2).5-11.2017.

26. Rahmanov, F., Aliyeva, R., Rosokhata, A., & Letunovska, N. (2020). Tourism Management in Azerbaijan Under Sustainable Development: Impact of COVID-19. *Marketing and Management of Innovations*, 3, 195-207. <http://doi.org/10.21272/mmi.2020.3-14>.
27. Sadiqi, J. (2018). Evaluating the development of SMART communities: a public value perspective. *Marketing and Management of Innovations*, 2, 155-157. <http://doi.org/10.21272/mmi.2018.2-13>.
28. Shymon, S., Kolomiets-Ludwig, E., Osiejewicz, Jo., Krawczyk, D. & Kaminska, B. (2020). The Role of Country Brand in Providing Economic Resilience. *Marketing and Management of Innovations*, 1, 303-311. <http://doi.org/10.21272/mmi.2020.1-26>.
29. Butkus, M., Maciulyte-Sniukiene, A., Matuzeviciute, K., & Davidaviciene, V. (2018). Society's attitudes towards impact of immigration: case of eu countries. *Marketing and Management of Innovations*, 1, 338-352. <http://doi.org/10.21272/mmi.2018.1-26>.
30. Kwilinski, A., Pajak, K., Halachenko, O., Vasylchak, S., Pushak, Y., & Kuzior, P. (2019). Marketing Tools for Improving Enterprise Performance in the Context of Social and Economic Security of the State: Innovative Approaches to Assessment. *Marketing and Management of Innovations*, 4, 172-181. <http://doi.org/10.21272/mmi.2019.4-14>.