# UNDERGROUND ECONOMY - FAVORING FACTORS. THE STUDY OF THE PHENOMENON IN A EUROPEAN CONTEXT

### Ioan FEHER<sup>1</sup>, Sorin Nicolae BORLEA<sup>2</sup>

<sup>1</sup>Faculty of Economics, University of Oradea, Oradea, Romania nelufeher@gmail.com

<sup>2</sup>Faculty of Economics, University of Oradea, Oradea, Romania; Faculty of Economics, Computer Science and Engineering, Vasile Goldis Western University, Arad, Romania; European Research Institute, Babes-Bolyai University Cluj-Napoca, Romania snborlea@yahoo.com; nicolae.borlea@ubbcluj.ro

**Abstract:** Continuing the study on the line of deepening the factors that favor and enhance the underground economy, we propose an analysis of how it manifests itself at national level, related to the European context, aiming to find effective solutions to reduce and keep the informal economy within reasonably accepted limits, there can be no question of its complete eradication. The existence of the underground economy level that cannot produce decisive negative effects in the economy, respectively serious market distortions and competitive environment, can be a pressure factor on the bureaucratic-legislative system in order to optimize it, respectively on the need to increase the economy digitalization level. The underground economy is directly related to the policies of a state, respectively responsible for the state budget size as a result of monetary contributions from individuals and legal entities. The underground economy is a complex phenomenon and can differ from one state to another, with certain features shaped by the fiscal policy adopted by each state. Regarding the differences in fiscal policy between states, the study highlights certain specific features of the states in the European economy, generated mainly by the level of development of their economy. In Europe's developed economies, fiscal policy is geared towards achieving a high level of employment, while developing economies focus on creating an conducive environment to economic development. The use of the methodology for investigating the literature, followed by the analysis and synthesis of data allowed us to identify the interdependencies between the factors favoring the underground economy, respectively the impact it had on the national economy as a whole and related to the European environment.

Keywords: underground economy, favorable factors, tax fraud, undeclared work, corruption

JEL classification: E26, H26

#### 1. Introduction

In accordance with the establishment and application of the state's fiscal policy, each individual (both at the level of the physical entity and at the level of the corporation) will perceive the primary interest as the priority of the collective, so that a behavior is formed in the initial phase to avoid the payment of taxes imposed by the state, constantly looking for ways to operationalize a mechanism for evasion of payment or artificial reduction of payment obligations to the state. We consider this universal

valid behavior being, in fact, the incipient phase of triggering complex mechanisms that have the role of avoiding the payment of obligations to the state, thus fueling the underground economy. Although the triggers of the described mechanism are generally valid, the spread of this phenomenon is uneven, being found in different proportions in the world's economies. The differences come from the way the authorities of a state implement fiscal policies, the existing legislative framework, respectively other subjective factors that derive from the particularities of each economy and society.

As a direct effect of the state budget deprivation, part of the revenues due to the existence of the underground economy, there is a weakening of the democratic state prerogatives in the exercise of its powers. In addition to the direct economic effects, the underground economy is responsible, to a lesser extent, for social and political effects. The economic and financial system that makes up a society determines the way it feeds and also the existence of underground economy. Poor tax collection leads to poor social protection, as well as contributing to an adequate social protection system.

The decrease in revenues to the state budget due to a high level of the underground economy determines, in most cases, the involvement of decision makers in the search for new solutions to finance a chronic budget deficit. A handy solution is to introduce new taxes and / or increase existing ones. Although this solution could have a short-term expected effect, we believe that the negative effects are much more important, as the long-term problem is not resolved. An initial increase in revenues is made without actually removing the root cause - tax evasion, moreover, the increase in taxation that generates a high tax burden results in an increase in tax avoidance, practically a new impetus of tax evasion, which translates into increasing the sources of supply for the underground economy.

In fact, the chain reaction leads to the feeding of a vicious circle whose sustainable solution can only be to reduce tax evasion by optimizing the legislative framework in a package with a determined and effective involvement of the institutions involved in combating this phenomenon.

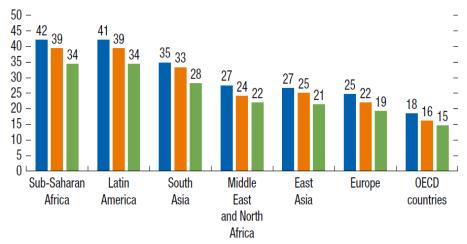
Only the sustainable reduction of the underground economy is likely to lead to an increase in revenues to the state budget without aggressively changing fiscal policy, without imposing new taxes or increasing existing ones.

In order to understand the local specificities regarding the underground economy, its generating factors, the involvement of the competent institutions in the fight against evasion and corruption, the analysis of the interdependencies between underground economy and corruption at national level is reported in European context.

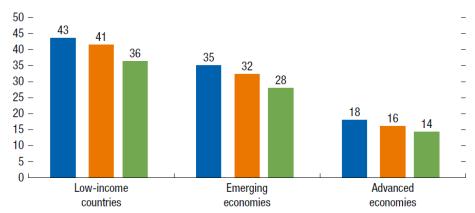
## 2. Favoring factors of the underground economy. Objective and subjective parts

According to an extensive study conducted by the International Monetary Fund (IMF) over several years, a number of causes of the underground economy have been

highlighted, revealing a series of complex mechanisms that determine economic developments that enhance to varying degrees the size of the underground economy. The research conducted by Deléchat and Medina (2021) under the auspices of the IMF highlighted the existence of peculiarities regarding the size and evolution of informal economies within and between countries, resulting that: the informal economy is large and represents, on average, one third of the global economy; the underground economy tends to shrink over time and be lower, to a greater extent in advanced economies, compared to lower-income countries (although the downward trend is not universal); the underground economy varies significantly between regions and countries, with Latin America and Africa standing out as the two regions with the largest informal economy in the world. In low-income countries, the average size of the informal sector averages 36%, down to 14% for advanced economies (chart no. 1 and 2).



**Chart 1**: The level of the underground economy by regions, percentage of GDP Source: Medina and Schneider, 2021



**Chart 2**: The level of the underground economy by income level, percentage of GDP Source: Medina and Schneider, 2021

The extensive study conducted by Medina and Schneider (2021) under the auspices of the IMF reviews the main *objective factors* causing informal activities. Starting from the classification of Gyomai and Van de Ven (2014), who associate the underground economy with the following activities: 1. Hidden production (activities that create value but are deliberately hidden from public authorities); 2. Illegal production (productive activities that generate goods and services prohibited by law); 3. Production in the informal sector (productive activities carried out by companies that partially declare the activity or the number of employees); 4. Production for own use (final) and 5. Underground statistics (productive activities that should be taken into account in data collection programs, but are missed due to poor systems), Schneider (2017) comes with an approach complex of variables that impact the underground economy.

According to this study, the underground economy is boosted by: the tax burden (on labor in particular): the distortion of the general tax burden affects work-leisure options and can stimulate labor supply in the underground economy (the higher the tax burden on labor in the official economy, the greater the incentive for labor to move into the informal economy); the quality of institutions or corruption: seen as a key factor in the development of the underground economy, due to the efficient and discretionary application of the tax code and government regulations, being considered more important than the real tax burden. A bureaucracy with highly corrupt government officials tends to be associated with more unofficial activity. An informal sector that is developing as a consequence of the failure of public institutions to promote an efficient market economy can only be reduced by consolidating the institutions and fiscal policies preferred by the most of society; regulation: labor market regulations in particular or trade barriers are another factor that reduces freedom (of choice) for individuals in the official economy. In fact, they substantially increase labor costs in the official economy and thus provide another incentive to work in the hidden economy; public sector services: the growth of the underground economy reduces state revenues, which in turn reduce the quality and quantity of goods and services provided to the public. This may eventually lead to increased tax rates for businesses and individuals, although the deterioration of the quality of public goods (such as public infrastructure) and government would continue. The consequence is an even stronger incentive to operate in the underground economy; fiscal morality: public sector efficiency has an indirect effect on the size of the hidden economy because it affects fiscal morale. Compliance with voluntary compliance with the payment of tax obligations is determined by a "tax contract" which involves rights and obligations not only from the taxpayers but also from the tax authorities. Taxpayers are more inclined to pay their taxes fairly if they receive quality public services; deterrence: despite the strong emphasis on deterrence in policies to combat the underground economy, little is known about the effects of deterrence. This is due to the fact that data on the legal context and frequency of controls are not available openly and comprehensively. In this context, no objective conclusions can be drawn as to how penalties and fines have an impact on the underground economy.

The same study also identified other factors of marginal importance that contribute to the maintenance or development of the underground economy. Unemployment rates, individual workers or the size of the agricultural sector are variables that are directly related to the size of the underground economy.

In addition to the objective causes, which have a wide support in the literature, there is a unanimous consensus on how it impacts the underground economy, various studies have focused on more unconventional areas, of *subjective causes*, very difficult to quantify, which affect also the level of the informal economy. The multitude of factors favoring the underground economy is underlined by various studies (Achim et al., 2019) which demonstrate an empirical evidence that certain cultural factors can help us understand the size of the underground economy in various countries.

As Stiglitz, Sen, and Fitoussi (2010) argue, the line between economics and other social sciences has become increasingly blurred, and so many behavioral phenomena in economics could be better explained if we turn our attention to other aspects related in the social field. The study of variables: culture, religion and happiness form, in a broad sense, the cultural sphere of a country. The study (Achim et al., 2019) conducted on European countries, in the period 2005–2015, reveals that four cultural dimensions: collectivism, femininity, short-term orientation and retention have a direct impact on the size of the underground economy. In addition, it turned out that happier people naturally tend to act more honestly, with the effect of lowering the level of the underground economy. Moreover, a high level of religiosity increases the inclination to orient activities towards the underground economy.

Several studies (Achim et al. 2018; Bergheim 2007; Schneider and Klinglmair 2004; Thiessen 2010) document a relationship between happiness and the underground economy. Thus we include another independent variable related to culture in our model of underground economy - happiness. Culture plays another important role in expressing spirituality, including religion, and may be directly related to subjective well-being or human happiness (Eckersley 2006). Regarding the influence of happiness on the size of a hidden economy, Schneider and Klinglmair (2004), Bergheim (2007), Thiessen (2010) and Achim et al. (2018) find that happier people are more likely to act honestly, thus reducing the size of the underground economy. Recent studies (Achim et al., 2020) highlight the impact of technology on economic and financial crime, highlighting the fact that an increase in the technological level in society and economy has a contribution to reducing the underground economy. In addition, it has been established that research and development expenditure (% of GDP) is more important in reducing economic and financial crime in low-income countries than in high-income countries. Starting from the premise of the influence that information and communication technology has on institutions with responsibilities in the fight against corruption, (starting from public authorities to the private sector and the media), Adam and Fazekas (2019), focusing especially on developing countries, it considers information technology to be effective in fighting corruption.

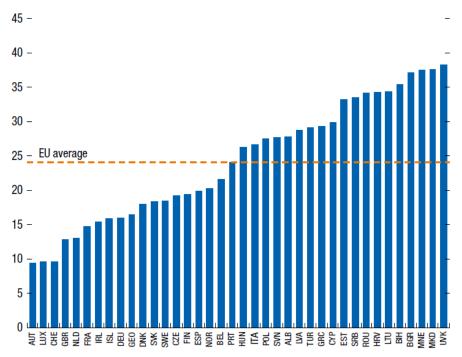
However, the positive effect is closely linked to the political environment, public governance and civil society. Wickberg (2013) provides examples of various technologies that impact the reduction of corruption: technologies used to report administrative abuse and corruption, to facilitate the filing of complaints (use of online networks, helplines or telephone applications), including sharing bribery experiences and electoral fraud. Information technology is also used to monitor access to information, public budgets and social services, political life, the judiciary and even illegal logging. Technologies also play a key role in social mobilization campaigns and citizen-government interaction, being extremely useful in several egovernment initiatives (e-procurement, e-justice, e-taxation, financial transactions and e-identification).

### 3. The underground economy in the European Union vs Romania

Starting from the study conducted by Kelmanson et al. (2021), under the auspices of the IMF, a complex analysis was made of the manifestation and level of the underground economy among the countries of the European Union. According to the data processed, although the formal economy has declined across Europe, it still remains at a significant level, especially in emerging market economies.

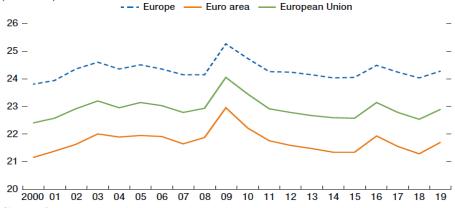
On average, underground economies are around 15-25% of GDP in the European Union, with higher values (30-40%) among developing countries.

Updated data (up to 2019) of underground economy estimates (Kelmanson et al., 2021) for 47 European countries, using the model of multiple indicators, multiple causes, used to estimate the size of the hidden economy as a share of GDP, highlights values between 10% and 40% of GDP, with a European average of 23%, Romania exceeding the average by about 10 percent (chart no. 3).



**Chart 3**: The level of the underground economy in the EU, percentage in GDP, 2019 Source: IMF statistical calculations

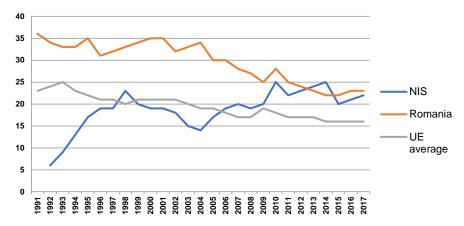
The data of the present study highlighted the existence of some disturbances in the evolution of the informal economies trend, with an obvious change in the period 2008-2010, a period that overlaps with that of the global financial crisis. During this period, most countries saw an increase in informal activity of about 1-2% of GDP (Chart 4).



**Chart 4**: The level of the underground economy in Europe, the Eurozone and the EU, as a percentage of GDP

Source: IMF Statistical Calculations (2000-2019)

Tax fraud as a relevant economic and social phenomenon in the economy of any state is present in all European Union countries, as an effect of state fiscal policies coupled with the quality of institutions with combat powers, being considered one of the main causes of the underground economy. When we talk about tax fraud we will always refer to illegal / illicit tax evasion, without taking into account the legal component, tax optimization, respectively "that form of interpretation of tax legislation which, without being fraudulent, leads to a reduction of the tax base, and therefore to pay lower taxes" (Bodu and Bodu, 2019). The study of some databases (National Institute of Statistics - NIS, 2019) and of the specialized literature (Medina and Schneider, 2018) certifies that Romania is higher than the European average in terms of the share of the underground economy fueled by tax fraud, even if in a slight decrease (chart no. 5).



**Chart 5**: The share of the underground economy in Romania vs. EU average (% in GDP) Source: NIS, Medina and Schneider, 2018

The data highlighted by Kelmanson et al. (2021) certifies the existence of an average level of European countries underground economies, with particularities specific to distinct categories of economies (developing and respectively developed), context in which some proposals are made to improve regulation and institutional quality.

Given the inversely proportional relationship between institutional quality and the underground economy, the steps taken by Kelmanson et al. (2021) to strengthen institutions can have a twofold effect: reducing the share of the underground economy while meeting development goals, practically generating a fair and long-term sustainable growth. Institutional reforms are crucial for resolving business bottlenecks, strengthening the rule of law, improving the effectiveness of governance and combating corruption.

Reducing administrative and regulatory barriers will have a direct impact on reducing the cost incentive for participation in the underground economy. Relevant are examples of reforms that include simplifying the registration and licensing process (automatic licensing in Georgia), creating a one-stop shop (Estonia), and reducing registration and statutory fees (USAID 2005).

Improving governance, increasing involvement and transparency through the adoption of measures to promote it (mandatory public electronic procurement for public procurement) in public administration (improving the judiciary) can improve

the government's perception, leading to an increase in voluntary compliance (IMF 2017).

According to the same study (Kelmanson et al. (2021), measures to reduce the share of the underground economy are appropriate to be implemented in the labor market and human capital. Thus, in countries with high labor migration and where the informal economy can act as a form of social security, policy action should focus on improving incentives for informal workers to migrate to the formal sector. In this context, encouraging private sector employment would contribute to the transfer of companies and workers from the informal to the formal sphere.

Actions aimed at improving human capital should focus on measures to increase the flexibility of employment and dismissal (in countries with excessive restrictions on labor law), while it is necessary to apply effective labor laws elsewhere in order to maintain fair competition conditions between companies. Measures to increase labor market inclusion through the development and implementation of personalized employment and training policies for target groups at risk of social exclusion (young people) or measures to create a favorable employment environment should also be considered for migrants returning to their environment, through special training activities and recognition of practical skills acquired abroad.

### Conclusions, limits and directions of research

We can see from this study how the underlying causes of the underground economy become its effects, which perpetuated, again turn into favorable factors. An inadequate fiscal policy, with a low quality of institutions, with a society affected by corruption will lead to low quality public services, will impact on fiscal morality, which in turn will fuel the underground economy. In order to stop the vicious circle, in which one factor potentiates another, we consider vital the harmonization of good governance (adequate fiscal policies, high quality of public services, low level of corruption) with the deterrent component of the phenomena that fuel the underground economy.

The study of the favorable factors and the forms of manifestation of the underground economy in Romania, compared to the EU countries cannot be limited only from the perspective of the present analysis, but represents a point of understanding of some correlations and interdependencies in the economy. Understanding the factors that determine the size of the underground economy allows the substantiation of more effective measures to combat this phenomenon. The limitations of the study are given by the need to correlate the data with the harmful effects of the underground economy on the economic and social environment. We aim to focus research on the measures needed to combat the phenomenon and its effects.

**Acknowledgement:** This work was supported by a grant of the Romanian Ministry of Education and Research, CNCS - UEFISCDI, project number PN-III-P4-ID-PCE-2020-2174, within PNCDI III.

### References

- 1. Achim, M.V., Borlea, N.S., Găban, L., Cuceu, I., (2018), "Rethinking the Shadow Economy in Terms of Happiness: Evidence for the European Union Member States", Technological and Economic Development of Economy 24 (1):199–228, [Online], available at: <a href="https://journals.vgtu.lt/index.php/TEDE/article/download/84/57">https://journals.vgtu.lt/index.php/TEDE/article/download/84/57</a>, [11.10.2021];
- 2. Achim, M.V., Borlea, N.S., Găban, L.V., Mihăilă, A.A., (2019), "The Shadow Economy and Culture: Evidence in European Countries", Eastern European Economics, [Online], available at: <a href="https://www.tandfonline.com/doi/full/10.1080/00128775.2019.1614461">https://www.tandfonline.com/doi/full/10.1080/00128775.2019.1614461</a>, [11.10.2021]:
- 3. Achim, M.V., Borlea, N.S., Văidean, V.L., (2020), "Does technology matter for combating economic and financial crime? a panel data study", Vilnius Gediminas Technical University, Technological and Economic Development of Economy, Volume 27 Issue 1: 223–261, [Online], available at: https://journals.vgtu.lt/index.php/TEDE/article/view/13977, [11.10.2021];
- 4. Adam, I., Fazekas, M., (2019), "Are emerging technologies helping win the fight against corruption in developing countries?", Pathways for Prosperity Commission Background Paper Series No. 21, Oxford, United Kingdom, [Online], available at: <a href="https://pathwayscommission.bsg.ox.ac.uk/Fight-against-corruption-paper">https://pathwayscommission.bsg.ox.ac.uk/Fight-against-corruption-paper</a>, [15.10.2021];
- 5. Bergheim, S., (2007), "The Happy Variety of Capitalism", Deutsche Bank Research, [Online], available at: <a href="https://zgf-fortschritt.de/media/pages/studien/bip-allein-macht-nicht-glucklich/2196640114-1598272105/bergheim-2007-happy variety capitalism.pdf">https://zgf-fortschritt.de/media/pages/studien/bip-allein-macht-nicht-glucklich/2196640114-1598272105/bergheim-2007-happy variety capitalism.pdf</a>, [15.10.2021];
- 6. Bodu, S., Bodu, C., (2019), "Infracțiuni economice. Comentarii și explicații. Adnotări cu jurisprudență", Ed. Rosetti, București, [Online], available at: <a href="https://lege5.ro/Gratuit/gm2damjxhazq/infractiuni-economice-comentarii-si-explicatii-adnotari-cu-jurisprudenta">https://lege5.ro/Gratuit/gm2damjxhazq/infractiuni-economice-comentarii-si-explicatii-adnotari-cu-jurisprudenta</a>, [15.09.2021];
- 7. Deléchat, C., Medina, L., (2021), "The Global Informal Workforce: Priorities for Inclusive Growth", Washington, DC: International Monetary Fund, [Online], available at: <a href="https://www.elibrary.imf.org/view/book/9781513586021/9781513586021.xml">https://www.elibrary.imf.org/view/book/9781513586021/9781513586021.xml</a>, [19.09.2021];
- 8. Eckersley, R., (2006), "Is Modern Western Culture a Health Hazard?", International Journal of Epidemiology 35: 252–58.doi:10.1093/ije/dyi235, [Online], available at: <a href="https://academic.oup.com/ije/article/35/2/252/694666">https://academic.oup.com/ije/article/35/2/252/694666</a>, [01.11.2021];
- 9. Fondul Monetar Internațional, (2017), "Reforming the Judiciary: Learning from the Experience of Central, Eastern and Southeastern Europe", Regional Economic Outlook: Europe, Washington, DC, November, [Online], available at: **Error! Hyperlink reference not valid.**, [17.10.2021];
- 10.Gyomai, G., van de Ven, P., (2014), "The non-observed economy in the system of national accounts", Statistics Brief 18, Organisation for Economic Co-operation and Development, Paris, [Online], available at: <a href="https://www.oecd.org/sdd/na/Statistics%20Brief%2018.pdf">https://www.oecd.org/sdd/na/Statistics%20Brief%2018.pdf</a>, [17.10.2021];
- 11.Institutul Național de Statistică, (2019), [Online], available at: **Error! Hyperlink reference not valid.**, [05.10.2021];
- 12.Kelmanson, B., Kirabaeva, K., Medina, L., (2021), "Europe's Shadow Economies: Estimating Size and Outlining Policy Options", [Online], available at:

https://www.elibrary.imf.org/view/books/071/29292-9781513575919-en/ch003.xml, [17.10.2021];

13.Medina, L., Schneider, F., (2018), "Shadow Economies Around the World: What Did We Learn Over the Last 20 Years?", [Online], available at: <a href="https://www.imf.org/en/Publications/WP/Issues/2018/01/25/Shadow-Economies-Around-the-World-What-Did-We-Learn-Over-the-Last-20-Years-45583">https://www.imf.org/en/Publications/WP/Issues/2018/01/25/Shadow-Economies-Around-the-World-What-Did-We-Learn-Over-the-Last-20-Years-45583</a>, [01.11.2020];

14.Medina, L., Schneider, F., (2021), "The evolution of shadow economies through the 21st Century", [Online], available at: <a href="https://www.elibrary.imf.org/view/books/071/29292-9781513575919-en/ch003.xml">https://www.elibrary.imf.org/view/books/071/29292-9781513575919-en/ch003.xml</a>, [19.10.2021];

15. Schneider, F. H., Klinglmair, R., (2004), "Shadow Economies around the World: What Do We Know?" Working Paper No. 0403, Universität Linz, [Online], available at: <a href="https://ftp.iza.org/dp1043.pdf">https://ftp.iza.org/dp1043.pdf</a>, [17.10.2021];

16.Schneider, F., (2017), "Estimating a Shadow Economy: Results, Methods, Problems, and Open Questions", Open Economics 1 (1): 1–29, [Online], available at: <a href="https://www.degruyter.com/document/doi/10.1515/openec-2017-0001/html">https://www.degruyter.com/document/doi/10.1515/openec-2017-0001/html</a>, [14.10.2021]; 17.Stiglitz, E., Sen, A., Fitoussi, J.P., (2010), "Mismeasuring Our Lives: Why GDP Doesn't add up. Commission on the Measurement of Economic Performance and Social Progress", New Press:

18. Thiessen, U., (2010), "The Shadow Economy in International Comparison: Options for Economic Policy. Derived from an OECD Panel Analysis", Discussion Papers, DeutschesInstitutfürWirtschaftsforschung, [Online], available at: <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1641039">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1641039</a>, [22.10.2021];

19.USAID, (2005), "Removing barriers to formalization: The case of reform and emerging best practice", [Online], available at: **Error! Hyperlink reference not valid.**, [12.10.2021]; 20.Wickberg, S., (2013), "Technological innovations to identify and reduce corruption", (U4 Expert answer No. 376), [Online], available at: <a href="https://www.u4.no/publications/technological-innovations-to-identify-and-reduce-corruption.pdf">https://www.u4.no/publications/technological-innovations-to-identify-and-reduce-corruption.pdf</a>, [22.10.2021].