

## MODERN INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE DIGITAL ECONOMY IN THE SYSTEM OF ECONOMIC SECURITY OF THE ENTERPRISES

<sup>a</sup>TETIANA SHMATKOVSKA, <sup>b</sup>IGOR BRITCHENKO, <sup>c</sup>SERHII VOITOVYCH, <sup>d</sup>PETER LOŠONCZI, <sup>e</sup>IRYNA LORVI, <sup>f</sup>IULIIA KULYK, <sup>g</sup>SVITLANA BEGUN

<sup>a,g</sup>Lesya Ukrainka Volyn National University, 28, Vynnychenko Str., 43025, Lutsk, Ukraine

<sup>b</sup>State Higher Vocational School Memorial of Prof. Stanislaw Tarnowski, 50, Henryka Sienkiewicza Str., 39-400, Tarnobrzeg, Poland

<sup>c,e,f</sup>Lutsk National Technical University, 75, Lvivska Str., 43018, Lutsk, Ukraine

<sup>d</sup>University of Security Management in Košice, 2373/1, Koš'ova Str., 04001, Košice, Slovakia

email: <sup>a</sup>shmatkovska2016@gmail.com, <sup>b</sup>ibritchenko@gmail.com, <sup>c</sup>gnidawa@ukr.net, <sup>d</sup>peter.losonczi@vsbm.sk, <sup>e</sup>i.lorvi@lutsksntu.com.ua, <sup>f</sup>y.kulyk@lntu.edu.ua, <sup>g</sup>begun.svitlana@vnu.edu.ua

**Abstract:** The article considers the features of ensuring the economic security of enterprises in the conditions of intensive introduction of information technologies in their activities in the process of forming the digital economy. It is determined that digitalization creates important advantages for enterprises in terms of implementing a long-term strategy for their development, strengthening economic security, and achieving significant competitive advantages in doing business. It is studied that the system of economic security of the enterprise is an organized set of elements of the management infrastructure of the enterprise, which are focused on ensuring stable and effective development of the business entity, neutralization, and elimination of internal and external threats.

**Keywords:** Digital economy, Digitalization, Economic security, Information technologies.

### 1 Introduction

The intensive development of globalization processes together with the digital transformation of the world system of economic relations into the digital economy is increasingly manifested in the growing role of information, strengthening the transformation of financial infrastructure, increasing and accelerating financial flows, increasing competition in financial services. That is why the functional and technological diversity of the spread of digitalization processes in these markets causes a situation of uncertainty in the impact on all components of financial security.

In this aspect, the study of the principles of financial security in the digital economy and the development on their basis of effective mechanisms for improving the financial system, ensuring financial stability, and sustainable economic development become especially important.

In today's world, financial relations are undergoing constant transformational changes. At the same time, the trends of the modern financial market are characterized by the challenges of the financial environment and the impact of digital transformation, forming new, unpredictable trends in this market. Therefore, it is now urgent to identify new trends, determinants, and digital models that can ensure the safe development of the financial market based on the principles of the digital economy.

At the same time, as practice shows, the use of digital software products for processing financial and economic accounting information greatly simplifies the management, analysis, and control of enterprises, institutions, and organizations. Thus, the financial security of all entities involved in business processes can counteract the potential risks and threats to financial stability and development success of both individual enterprises and the financial market as a whole.

Therefore, the effective development of the digital economy is possible only if the forecast and expected development of the situation in financial markets, which with their resources and ensures global digital transformation.

### 2 Literature Review

Research on financial security is not new to modern economics and addresses a wide range of issues – from the stability of financial markets to the financial security of enterprises and specific business processes. In this aspect, it is necessary to note the significant contribution made in the study of practical aspects of financial security as a structural component of economic security of the state and economic entities in particular, which is made by researchers such as O. Agres [1], O. Amosov [2], V. Arefiev [4], I. Balaniuk [6], E. Boichenko [9], E. Dukas [13], A. Epifanov [22], R. Howell [24], Y. Popova [31], R. Sodoma [35-38], O. Stashchuk [39-41], Z. Varnalii [43], I. Yakoviyk [45], O. Yatsukh [47] and others.

At the same time, in the process of development of post-industrial society in scientific publications, there has been a significant deepening of the theoretical foundations, essential characteristics, and categorical features of financial security in the context of the digital economy. This topic is revealed in the works of such scientists as O. Apostolyuk [3], I. Bakhov [5], O. Binert [7], A. Boiar [8], Y. Chaliuk [12], M. Dziamulych [14-21], I. Kolodii [25-26], N. Moşteanu [27], O. Pakhnenko [28], T. Shmatkovska [32-34], Ya. Yanyshyn [46], I. Zhurakovska [48].

In our opinion, it is worth noting the approach proposed by O. Panchenko, who argues that digital technologies can both ensure financial stability and security and threaten these two components. On the one hand, the latest information technologies can be used to disseminate and exchange ideas and strategies to achieve financial security, as well as to implement and coordinate plans and operations to ensure its provision to financial market participants. However, on the other hand, information technologies can be used in such a way as to threaten the financial stability and security of the market as a whole and its individual subjects [29]. The value of this approach lies in revealing the essence of digital innovations implemented in financial markets, as possible benefits and, at the same time - potential threats to financial security.

In terms of disclosing the essence of financial security, we follow the view of N. Pantelieeva, who argues that the signs of financial security differ depending on the subject of economic relations. At the same time, their difference is to clarify the target direction of the resulting action of financial security with varying degrees of detail, but most often it is associated with the state of a subject and emphasizes the influence of external and internal factors, the ability to resist them [30].

With regard to practical approaches to financial security in terms of digitalization of economic relations, it is worth noting the study of B. Carin, who notes that the security of the financial sector in the introduction of new information technologies will significantly expand opportunities to stimulate innovation, use the potential of the digital economy for inclusive global growth and development, modernizing traditional industries and promoting structural reform, minimizing risks to the financial sector and other infrastructure, and ensuring security. in a way that promotes creativity [11].

In general, it can be argued that there is an objective need to update approaches to the financial security of both financial market participants and individual business processes in the context of integration of the financial and manufacturing sectors with digital economy technologies.

### 3 Materials and Methods

The main method of research was the use of content analysis, which examined the specifics of modern scientific approaches to

understanding the essence of such key categories as "digitalization", "financial security", and "digital economy". The concomitant application of methods of analysis and synthesis made it possible to explore the nature and features of the transformations that have taken place in the financial market in the context of ensuring the financial security of its participants under the influence of the global digital economy.

An important aspect of assessing the level of impact of digital technologies on a particular industry or field of activity is to take into account specific indicators of digitalization. It should be borne in mind that such indicators are relatively subjective in nature, so the assessment of the impact of digitalization on financial markets and financial security should be based on the use of a set of individual criteria and indicators. Such indicators include:

- The Digital Economy and Society Index (DESI) is a consolidated index that summarizes the relevant indicators of the effectiveness of digital technologies in the field of digital competitiveness. The data covers five main areas: communications, human capital, Internet use, integration of digital technologies and digital public services [23];
- Global Findex database, which shows indicators of access and use of financial services around the world, based on which new data on the level of use of financial technologies (fintech), including the use of mobile phones and the Internet for financial transactions [42];
- The indicator of the share of traditional credit substitution with alternative online financing (ALTF), which shows the share of alternative online financing in total lending to the entire private sector, including loans raised by businesses and households through online platforms [10].

Based on these indices and data, you can determine the overall average level of impact of digitalization on the financial market of a country using the following formula:

$$DL = w_{DESI} \times DESI + w_{GF} \times GF + w_{ALTF} \times ALTF$$

where DL – level of digitization;

$w_i$  – the corresponding weighting factor  $i$ -th indicator (DESI, Global Findex, ALTF).

In this case, if necessary, this formula can be adjusted by introducing additional indices that will reflect the desired direction of the impact of digital technologies on the functioning or development of financial markets.

#### 4 Results and Discussion

Serial production, the flexibility of the technological process, the universality of computer decisions promoted a decrease in cost characteristics of products and complexes, adjustment of service, creation of the system of education based on information technologies. The creation and improvement of electronic computing devices contribute to the formation of the infrastructure of information support of almost all sectors of the economy. Applied development and implementation of digital principles of information processing in industry and agricultural production, control devices for technological equipment, in the management of the enterprise unified electronic components, units, software modules of these systems.

It is undeniable that the intensification of digitalization processes has a positive impact on the financial and economic results of enterprises involved in the use of certain tools, and the innovation potential of the state as a whole. However, important to ensure the high efficiency of such processes is to ensure safe operating conditions for both business entities and state institutional and legal infrastructure in the face of exacerbation of information security problems or uncontrolled certain information areas of the global network.

At the same time, the speed of access to information entails another problem – the threat to the information security of the

enterprise. In addition, all competitors are free to obtain information from the Internet (pricing policy, activities) and use it to form their activities on the same basis or even better (for example, giving more discount than a competitor; more favorable terms of cooperation, etc.). Peculiarities of consumer behavior in certain highly competitive areas do not allow to avoid the reflection of prices, terms of delivery, or payment in online stores, and therefore competition intensifies and if the company is not able to develop all the time, offering more favorable conditions than competitors, there is a threat loss of market position.

Therefore, the information process at the enterprise should be aimed at obtaining scientific and technical, production, planning, control, accounting, and analytical information in information systems that are unified and based on the implemented digital technology. An important role in the use of information is played by methods of its registration, processing, accumulation, transmission, storage, and issuance in the required form, as well as methods of recycling numerical, graphical, textual, and other information.

As today's digital transformation of enterprises has undeniable advantages in the implementation of activities, the latest information technologies and corporate software products should be integrated into business processes and provide strategic management of such processes. Accordingly, the development of a digital security strategy of the enterprise should be based on a concept based on the following basic principles:

- Digital and information security of the enterprise must be unique, based on its organizational structure, production specialization, and the availability of digital technologies;
- The functioning of the digital security system of industrial and agricultural enterprises can be ensured only if the comprehensive security of all its functional components;
- Effective digital security of the enterprise is possible only with a well-thought-out concept and appropriate security measures.

Implementation of computerized systems in the management of technological processes and the enterprise requires significant resources. The use of knowledge-intensive tools requires the creation of specialized departments with certain production areas, technical means, highly qualified personnel. Due to the short life cycle of computer systems, the created complexes must be periodically updated. In addition, the components of the information system in complex complexes require additional maintenance, which complements the quantitative and qualitative composition of computer equipment for certain financial resources.

The financial aspect is the main component of security management, covering a wide range of issues on the organization of efficient movement and use of financial resources in the enterprise, which is significantly affected by digitalization processes, from nominal growth of expenditure digitization of accounting and analytical functions in the field of financial management.

In general, modern technologies make it possible to significantly expand the markets in which agricultural and industrial enterprises operate. It is not necessary to be physically present in a particular region, because the Internet allows you to participate in foreign markets, which potentially opens a new market, and various order management and accounting programs and warehousing warehouses allow you to manage the sales process remotely access. Banking technology allows you to get paid also in the country of the physical base of the enterprise.

Thus, it is possible to determine the specifics of resource and cash flows that affect the economic security of the enterprise, in the structure of revenues or expenditures of which a significant share is occupied by information technology (Figure 1).

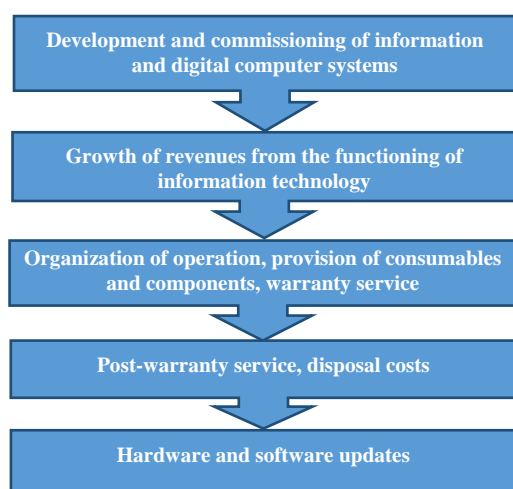


Figure 1 – The main factors influencing the level of security of the enterprise when using information technology [44]

Thus, we can conclude that the degree of penetration of modern technology into business is so deep that it is not limited to information, but also affects other elements of the enterprise, affecting overall economic security in general. Therefore, managers of agricultural and industrial enterprises face additional tasks to control the level of economic security, taking into account current trends. In addition, ensuring the economic security of industrial and agricultural enterprises should be implemented in two ways: eliminating potential threats posed by the active development of digital technologies, as well as – providing opportunities that generate the same digital technologies. At the same time, the economic security of the enterprise can be ensured only with a balanced consideration of all these aspects, which results in the formation of an effective dynamic information protection system with the effective functioning of the digital innovation market monitoring system.

## 5 Conclusion

As a result of research, it is established that intensive development of information technologies today allows increasing the efficiency of functioning of the enterprise as a whole, to form new opportunities, to increase the efficiency of work of its personnel. Thus, the impact of information technology is present at all stages of the enterprise – from business planning to the formation of long-term development strategy.

However, ensuring the economic security of the enterprise depends on the level of digitalization of this process. At the same time, the expediency of digitalization is determined by the speed and understanding of the state of economic security of the enterprise, the establishment of a system of effective communication networks. Intensification of the process of digitalization of the economic security of the enterprise allows its management to develop strategic forecasts for the future, which specifies the most effective use of strengths and capabilities of the enterprise. Thus, a key factor in the success of the digital security system of industrial and agricultural enterprises is to build an effective strategy for its implementation and operation on the basis of long-term development goals.

## Literature:

1. Agres, O., Sadura, O., Shmatkovska, T., & Zelenko, S. (2020). Development and evaluation of efficiency of leasing activities in agricultural sector of Ukraine. *Scientific Papers: Series "Management, Economic Engineering in Agriculture and rural development"*, 20(3), 53-60.
2. Amosov, O. Y. (2011). Financial security of the enterprise in modern economic conditions: theoretical aspect. *Problems of Economics*, 4, 76-80.

3. Apostolyuk, O., Shmatkovska, T., Chykalov, I., & Husak, A. (2020). Assessment of the rural population economic activity in the system of united territorial communities development: a case study of Volyn Region, Ukraine. *Scientific Papers: Series "Management, Economic Engineering in Agriculture and rural development"*, 20(3), 99-108.
4. Arefiev, V. O. (2010). The essence and features of financial security of the enterprise as an economic category. *Bulletin of Transport Economics and Industry*, 32, 167-170.
5. Bakhov, I. S. (2015). Historical dimension to the formation of multicultural education of Canada. *Pedagogika*, 117(1), 7-15.
6. Balaniuk, I., Kyrlyenko, V., Chaliuk, Yu., Sheiko, Yu., Begun, S., & Diachenko, S. (2021). Cluster analysis of socio-economic development of rural areas and peasant farms in the system of formation of rural territorial communities: a case study of Volyn region, Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(3), 177-188.
7. Binert, O., Sodoma, R., Sadovska, I., Begun, S., Shmatkovska, T., & Balash, L. (2021). Mechanisms for improving economic relations in the milk subcomplex of the agricultural sector: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(2), 101-110.
8. Boiar, A. O., Shmatkovska, T. O., & Stashchuk, O. V. (2018). Towards the theory of supranational finance. *Cogent Business & Management*, 5(1).
9. Boichenko, E., Martynovych, N., & Shevchenko, I. (2021). Cognitive modeling concepts of sustainable development of society. *Problemy Ekorozwoju*, 16(2), 159-165.
10. Cambridge Centre for Alternative Finance. (2022). Faculty research. Available at: <https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance>.
11. Carin, B. (2017). G20 safeguards vulnerabilities of digital economy, with financial sector focus. *G20 Insights*. Available at: [https://www.g20-insights.org/policy\\_briefs/g20-safeguards-vulnerabilities-digital-economy-financial-sector-focus/](https://www.g20-insights.org/policy_briefs/g20-safeguards-vulnerabilities-digital-economy-financial-sector-focus/).
12. Chaliuk, Y., Dovhanyk, N., Kurhala, N., Komarova, K., & Kovalchuk, N. (2021). The digital economy in a global environment. *AD ALTA: Journal of Interdisciplinary Research*, 11, Special issue XVII, 143-148.
13. Ducas, E., & Wilner, A. (2017). The security and financial implications of blockchain technologies: Regulating emerging technologies in Canada. *International Journal*, 72(4), 538-562.
14. Dziamulych, M., Kulinich, T., Shmatkovska, Y., Moskovchuk, A., Rogach, S., Prosovych, O., & Talakh, V. (2022). Forecasting of economic indicators of agricultural enterprises activity in the system of ensuring their management on the basis of sustainable development: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 22(1), 207-216.
15. Dziamulych, M., Moskovchuk, A., Vavdiuk, N., Kovalchuk, N., Kulynych, M., & Naumenko, N. (2021). Analysis and economic and mathematical modeling in the process of forecasting the financial capacity of milk processing enterprises of the agro-industrial sector: a case study of Volyn region, Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(1), 259-272.
16. Dziamulych, M., Petrukha, S., Yakubiv, V., Zhuk, O., Maiboroda, O., Tesliuk, S., & Kolosok, A. (2021). Analysis of the socio-demographic state of rural areas in the system of their sustainable development: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(4), 223-234.
17. Dziamulych, M., Sadovska, I., Shmatkovska, T., Nahirska, K., Nuzhna, O., & Gavryliuk, O. (2020). The study of the relationship between rural population spending on peasant households with the main socioeconomic indicators: a case study of Volyn region, Ukraine. *Scientific Papers: Series "Management, Economic Engineering in Agriculture and rural development"*, 20(2), 217-222.
18. Dziamulych, M., Shmatkovska, T., Gordiichuk, A., Kupyra, M., & Korobchuk, T. (2020). Estimating peasant farms income and the standard of living of a rural population based on multi-factorial econometric modeling: a case study of Ukraine.

- Scientific Papers: Series "Management, Economic Engineering in Agriculture and Rural Development"*, 20(1), 199-206.
19. Dziamulych, M., Shmatkovska, T., Petrukha, S., Zatssepina, N., Rogach, S., & Petrukha, N. (2021). Rural agritourism in the system of rural development: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(3), 333-343.
20. Dziamulych, M., Stashchuk, O., Korobchuk, T., Mostovenko, N., Martyniuk, R., Strelkova, I., & Grebeniuk, N. (2021). Banking innovations and their influence on the formation of digital banking. *AD ALTA: Journal of Interdisciplinary Research*, 11(2), Special issue XXI, 108-112.
21. Dziamulych, M., Yakubiv, V., Shubala, I., Filiuk, D., & Korobchuk, L. (2020). Analysis and evaluation of the rural labour market and employment of the rural population: a case study of Volyn region, Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 20(4), 165-174.
22. Epifanov, A. A., & Derkach, O. M. (2011). The role of international regulation in ensuring the financial security of the insurance market. *Bulletin of Zhytomyr State Technological University. Series: Economic Sciences*, 4(58), 337-339.
23. EU4Digital. (2020). *Digital Economy and Society*. Available at: <https://eufordigital.eu/uk/library/digital-economy-and-society-index-desi-2020>.
24. Howell, R. T., Kurai, M., & Tam, L. (2013). Money buys financial security and psychological need satisfaction: Testing need theory in affluence. *Social Indicators Research*, 110(1), 17-29.
25. Kolodii, S., Kochuma, I., Marenych, A., & Rudenko, M. (2018). Features of functioning national model of resource economics in Ukraine. *Financial and credit activity: problems of theory and practice*, 4(27), 359-369.
26. Kolodii, S., Gariaga, L., Rudenko, M., & Kolodii, S. (2019). Econometric analysis of indicators of development of financial and real economic sectors. *Financial and credit activity: problems of theory and practice*, 4(31), 279-290.
27. Moșteanu, N. R. (2020). Challenges for Organizational Structure and design as a result of digitalization and cybersecurity. *The Business & Management Review*, 11(1), 278-286.
28. Pakhnenko, O., Rubanov, P., Hacar, D., Yatsenko, V., & Vida, I. (2021). Digitalization of financial services in European countries: Evaluation and comparative analysis. *Journal of International Studies*, 14(2).
29. Panchenko, O. A. (2020). Information technologies in ensuring state security. *Science Review*, 5(32), 30-35.
30. Pantelieeva, N. M. (2020). Financial security in the digital economy: expectations and reality. *Financial Space*, 2(38), 22-37.
31. Popova Y., Fyshchuk I. (2017). Logistics future of Ukraine under the new Silk Road process. *7-th International Conference on Logistics, Informatics and Service Sciences*. Japan/China. Available at: <http://icir.bjtu.edu.cn/liss2017/intro.jhtml>.
32. Shmatkovska, T., Dziamulych, M., Gordiichuk, A., Mostovenko, N., Chyzh, N., & Korobchuk, T. (2020). Trends in human capital formation and evaluation of the interconnection of socio-demographic processes in rural area: a case study of Volyn region, Ukraine. *Scientific Papers: Series "Management, Economic Engineering in Agriculture and Rural Development"*, 20(2), 437-444.
33. Shmatkovska, T., Dziamulych, M., Yakubiv, V., Myshko, O., Stryzheus, L., & Yakubiv, R. (2020). Economic efficiency of land use by agricultural producers in the system of their non-current assets analysis: a case study of the agricultural sector of Ukraine. *Scientific Papers: Series "Management, Economic Engineering in Agriculture and Rural Development"*, 20(3), 543-554.
34. Shmatkovska, T., Nikolaeva, A., Zabedyuk, M., Sheiko, Yu., & Grudzevych Yu. (2020). Increasing the efficiency of the labour resources usage of agrosector enterprises in the system of sustainable development of the rural territories: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 20(4), 467-476.
35. Sodoma, R., Brukh, O., Shmatkovska, T., Vavdiuk, N., Bilochenko, A., Kupyra, M., & Berezhnynska, G. (2021). Financing of the agro-industrial complex in the context of the implementation of international experience. *Financial and credit activity: problems of theory and practice*, 38(3), 341-350.
36. Sodoma, R., Cherevko, H., Krupiak, I., Andrusiak, H., Brodska, I., & Shmatkovska, T. (2021). Regulation of the lending market and prospects of financial sector stabilization in Ukraine. *Financial and credit activity-problems of theory and practice*, 36(1), 4-13.
37. Sodoma, R., Shmatkovska, T., Dziamulych, M., Vavdiuk, N., Kutsai, N., & Polishchuk, V. (2021). Economic efficiency of the land resource management and agricultural land-use by agricultural producers. *Management Theory and Studies for Rural Business and Infrastructure Development*, 43(4), 524-535.
38. Sodoma, R., Shmatkovska, T., Dziamulych, M., Vavdiuk, N., Kutsai, N., & Polishchuk, V. (2021). Economic efficiency of the land resource management by agricultural producers in the system of their non-current assets analysis: a case study of the agricultural sector. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(2), 577-588.
39. Stashchuk, O., Boiar, A., Shmatkovska, T., Dziamulych, M., Skoruk, O., Tesliuk, S., & Zintso, Yu. (2021). Analysis of fiscal efficiency of taxation in the system of filling budget funds in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 11(1) Special Issue XVII, 47-51.
40. Stashchuk, O., Shmatkovska, T., Dziamulych, M., Kovalska, L., Talakh, T. & Havryliuk, O. (2021). Integrated assessment, analysis and management of financial security and stability of joint-stock companies operating in the agricultural sector: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(2), 589-602.
41. Stashchuk, O., Shmatkovska, T., Dziamulych, M., Kupyra, M., Vahnovska, N. & Kosinskyi, P. (2021). Model for efficiency evaluation of financial security management of joint stock companies operating in the agricultural sector: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(1), 715-728.
42. The World Bank. (2017). *The Global Findex database 2017*. Available at: <https://globalfindex.worldbank.org/>.
43. Varnalii, Z. S., & Tomashevsky, T. T. (2018). The place of financial security in the system of economic security of Ukraine. *International scientific journal Internauka. Series: Economic Sciences*, 8, 53-60.
44. Voitko, S. (2003). Information technologies: efficiency of operation and economic security of the enterprise. *Legal, regulatory and metrological support of the information protection system in Ukraine*, 7, 39-44.
45. Yakoviyk, I., Chyzhov, D., Karpachova, N., Hlushchenko, S., & Chaliuk, Yu. (2020). National security policy in Ukraine: a change in the system of power relations of the modern world. *Revista San Gregorio*, 42, 224-235.
46. Yanyshyn, Ya., Sodoma, R., Markiv, G., Lypych, L., Shmatkovska, T., & Shidnytka, G. (2020). Economic efficiency of the nuts complex business in the agriculture of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 20(2), 531-536.
47. Yatsukh, O., Demchenko, I., Ilnytsky, D., Tsap, V., & Shmatkovska, T. (2021). Management of banking innovations in the conditions of digitalization. *AD ALTA: Journal of Interdisciplinary Research*, 11, Special issue XVII, 123-127.
48. Zhurakovska, I. V., Sydorenko, R. V., Shmatkovska, T. O., & Brodska, I. I. (2020). Factors of influence on employment in small and medium-sized business in Ukraine. *Financial and credit activity: problems of theory and practice*, 32(1), 109-119.

**Primary Paper Section: A**

**Secondary Paper Section: AE, AH**