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DIGITALIZATION OF SMALL AND MEDIUM-SIZED BUSINESSES IN UKRAINE AS A SUCCESS FACTOR IN INTERNATIONAL MARKETS

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Innovation and digitization have a major impact on business competitiveness, and it is growing rapidly. But the problem is that a significant proportion of Ukrainian manufacturers do not realize this, relying on proven but outdated methods of doing business. Most SMEs use standard computer tools and software at the level of basic processes (electronic accounting, communication, use of websites and social networks). Nevertheless, only a few of SMEs representatives use digital technologies for planning and forecasting business operations, and cloud computing services, which have become popular in developed economies, are almost not used by Ukrainian businesses. The article analyzes the reasons for this situation, provides the results of a survey of SME managers with relation to the digitization of processes at their production facilities, and proposes systemic solutions in the field of increasing business capabilities related to international online trade.

ЦИФРОВІЗАЦІЯ МАЛОГО І СЕРЕДНЬОГО БІЗНЕСУ В УКРАЇНІ ЯК ФАКТОР УСПІХУ НА МІЖНАРОДНИХ РИНКАХ

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Ключові слова:

міжнародні ринки, війна, глобальні ринки, світова економіка, онлайн маркетинг, цифровізація, підприємництво, малі і середні підприємства (МСП), конкурентоспроможність, реформи, стратегія розвитку.

Інновації та цифровізація мають серйозний вплив на конкурентоспроможність бізнесу, і він стрімко зростає. Але проблема полягає в тому, що значна частка українських виробників це не усвідомлює, сподіваючись на перевірені але застарілі методи ведення бізнесу. Більшість МСП використовують стандартні комп'ютерні інструменти та програмне забезпечення на рівні базових процесів (електронна бухгалтерія, комунікація, використання сайтів та соц-мереж). Однак лише одиниці з представників МСП користуються цифровими технологіями для планування та прогнозування економічної діяльності бізнесу, а послуги хмарних обчислень, які стали популярними в розвинутих економіках, майже не використовуються українським бізнесом. В статті проаналізовані причини такої ситуації, надані результати опитування керівників МСП щодо цифровізації процесів на їх виробництвах, запропоновані системні рішення в галузі розширення можливостей бізнесу у сфері міжнародної онлайн-торгівлі.

Problem stating

International logistics, transnational trade barriers, new methods of transaction costs, involvement of artificial intelligence, digitalization of quality control processes – all this requires a digitalization strategy for every SME enterprise that works or is preparing to work with international partners and secure a foothold in global markets. Small businesses of all countries of the world are increasingly

showing the characteristics of globalization, which is manifested in the increase in foreign economic activity, in the deployment of global information technologies, in the harmonization of forms and in business gold standards of entrepreneurial activity [1]. Moreover, new business structures, the so-called “small transnational companies”, have come to global markets, which are quite on firm ground on the world trading platforms, having a small number of full-time personnel [2, p.2]. It is becoming apparent that

the equilibrium growth of the global economy is going to occur due to the digitization of markets and access to them by business players.

Analysis of latest research and publications

Scientists lay special emphasis on the fact that digital transformation of the business sector is of crucial importance for supporting the dynamic character of the Ukrainian economy in the era of digital technologies (Shevchenko I. O., 2022). “Ukrainian companies are relatively positive concerning digitalization, but mostly feel they are lagging behind their competitors in digital transformation. Although technology companies and other global innovators have not yet targeted at the Ukrainian market, they will do so in the long run” [3]. Foreign scientists focus extensively on the topic of increasing the efficiency of trade on international markets and the use of online technologies: S. Hensler, M. H. Dekimpe, V. Skiera [4] considered the ways and methods of evaluating the effectiveness of the defined channels of goods and services promotion within the framework of using multi-channel strategies; Fang-FangTang and XiaolinXing[5] devoted their studies to the same question; M. Laroche, I. Kiani, N. Economakis and M.O. Richard [6] studied the psychology of consumer behavior and its response to online sales technologies; Chatterjee S. and Kar A.K. investigated the application of marketing technologies in SMM by small and medium-sized companies in particular, and provide the experience of Indian entrepreneurs as a vivid example [7]. Beginners on the way to conquering international markets and implementing the digitalization of their own marketing should become acquainted with the “bible” of the SMM manager – TheFinancialTimes guide to social media strategy [8]. David Mirman Scott fundamentally teaches the theory of digital marketing in his book *The New Rules of Marketing and PR*, which has become a world bestseller and has been translated into 29 languages. Among Ukrainian authors, it is worth noticing the paper of K. V. Shimanska and Bondarchuk V. V. *Analysis of Marketing Possibilities of Using Online Channels for the Promotion of Products of Ukrainian SMEs* [9], in which the distinguishing characteristics and features of the use of various online channels for the promotion of products to foreign markets are formulated. Generally, there are many scientific papers in the field of neuroscience and their use in marketing. Even too much. And since technologies are developing quite quickly, there is a need to create basic concepts of using online technologies in business with adaptation to Ukrainian day-to-day realities.

Goal formation

The goal of the article is to analyze the main issues of the development and implementation of digital technologies by small and medium-sized businesses of Ukraine under war conditions and outline the priorities on the way to digitalization of domestic business.

Statement of basic material of the research

Ukraine is one of the countries producing IT-sector products and even ranks 12th in terms of the number

of founders of “unicorn” companies. And although the Ukrainian government supports the digitalization of the country in every possible way and has even included the development of digital technologies in the list of key areas of the “National Economic Strategy until 2030”, analytical studies indicate a low level of digitalization of about business processes.

As with the latest technologies, digitalization is moving forward primarily among representatives of large businesses. But SMEs are more mobile and flexible business structures, so in this sense, small and medium-sized businesses should not remain aloof from the technologies of the digital era. But this does not happen. The reason are that the level of understanding of digitalization by managers and founders of SMEs is low. Even among large companies, only 20% of Ukrainian companies have a digital strategy. Moreover, only a few companies of all sizes have assigned the responsibility for digital transformation to a digital department or a digital transformation coordinator. A small proportion of large companies have not taken any measures from this perspective [1]. If you look in comparison, the lowest indicators of innovative activity among the countries of the European Union have Portugal – 26% and Greece – 29%, but even these indicators are twice as high as in Ukraine. And compared to leading countries such as the Netherlands (62%), Austria (67%), Germany (69%), Denmark (71%) and Ireland (74%), this gap with Ukraine is almost five times lower [10]. The rapid digital transformation is based on digital trends that should be monitored and studied by small and medium-sized businesses. And it is necessary to give consideration to this at all levels – from the service department or an employee to the head of the enterprise. If the manager or top management does not understand the digitalization trends, such an enterprise will not be able to build a development strategy and achieve competitiveness criteria that will bring it to global markets.

In fact, SMEs shall engage digital technologies as an absolute factor for their efficiency and competitiveness. That is, the consumer who receives goods and services on the global market in the era of digitalization does not care who actually produced them – whether it is a transnational corporation or a small or medium-sized enterprise. The main selection criteria are applicable quality, speed of delivery and comfortable service system. The chances for giants and SMEs in global markets are becoming equal in terms of access to the consumer. Today, digital technologies are implemented as part of business processes, and their widespread use can be seen in all spheres of life [12]. This happens because:

- their exponential cost improvement in combination with available cloud services reduces the capital investment required to launch a business;
- their application reduces costs, increases production performance and decision-making efficiency;
- they become cheaper and, accordingly, more accessible owing to free content and services (due to low marginal costs): users pay only part of the value that is created in the digital economy;
- they can be used to create unique products fully adapted to the client’s preferences [12].

An example of the use of digital technologies in agricultural business (Fig. 1):

According to the “Digital Agenda of Ukraine” study, if the digitization of grain production is carried out throughout Ukraine and in all farms, it will increase the volume of production from the current 60 million tons of grain to 85 million tons annually and increase exports from 36 million tons to 63 million tons [13].

Digitization has a great positive impact on all aspects of society and business. This includes access to information and repositories of unique data from around the world, the possibility of improving the level of qualifications of employees of all stages of the production process, this is cost minimization and optimization of management, improvement of the quality of products and services, quick response to any processes and events on the domestic and foreign markets. And this is far from the whole list. However, there are certain warnings. The Razumkov Institute warns that despite a number of good news generated by digitization, it also presents a number of challenges for which both society and business may not be ready: progressive automation and the application of robotics will result in a disruption of the labor market, which will be characterized by unemployment and income inequality [12]. The so-called “digital divide” may cause an imbalance in employment between the generation of “digitalized” young people and middle-aged professionals. Among other threats are violations of information confidentiality, leakage of personal and corporate data, increasing social distance, loss of national traditions and customs.

The development of digital technologies and the rapid promotion and expansion of the representation of artificial intelligence in the field of marketing require the involvement of all possible areas of electronic commerce to promote the products of Ukrainian SMEs to foreign markets. Within this framework, entrepreneurs should consider a set of measures and various resources and schemes that would help build channels for the promotion of goods to the international economic space. These are official electronic trading bases and platforms, reference electronic resources, commercial industry sites, marketplaces and social networks. From the point of view of the ability of domestic businesses to implement online marketing technologies,

it turns out that companies that use a multi-channel strategy in digital commerce would rather choose international marketplaces. This way of selling goods abroad has already shown quick outcomes for many exporters. However, recent changes in the global markets caused by the aggression of the Russian Federation against Ukraine have presented new challenges to business and the necessity to revise some mechanisms in the tactics and strategy of enterprises engaged in or planning to be engaged in export-import activities. Factors that influenced the change of these mechanisms:

- active opposition of local entrepreneurship and trade unions to the import of Ukrainian goods to the territory of EU countries, who have become stable consumers of Ukrainian products in recent years;
- the threat of introducing quotas and restrictions on a number of Ukrainian goods that provoke competition on local markets;
- the complication of the logistics of trade operations related to the blocking of borders, which several countries used as a mechanism to prevent trade in Ukrainian goods;
- the threat of shelling and the destruction of production facilities, which may lead to non-fulfillment of international contracts;
- problems with relocation and personnel problems caused by the outflow of specialists abroad and mobilization;
- imperfect mechanisms of customs taxation, which entails an increase in customs payments and possible downtime and loss of time before moving goods across borders.

At the same time, the availability of all this unfavorable development does little to explain the low activity of many SMEs regarding the implementation of multi-channel digital marketing technology. Even in the domestic market, online trade is mainly carried out by individuals, retail chains and small craft brands. These processes go mainly through two channels: sales in social networks and on their own sites or landing pages. Several Ukrainian marketplaces provide an opportunity to promote goods in the domestic market, but the use of these platforms has become too expensive and getting into the top pages requires significant costs from entrepreneurs without

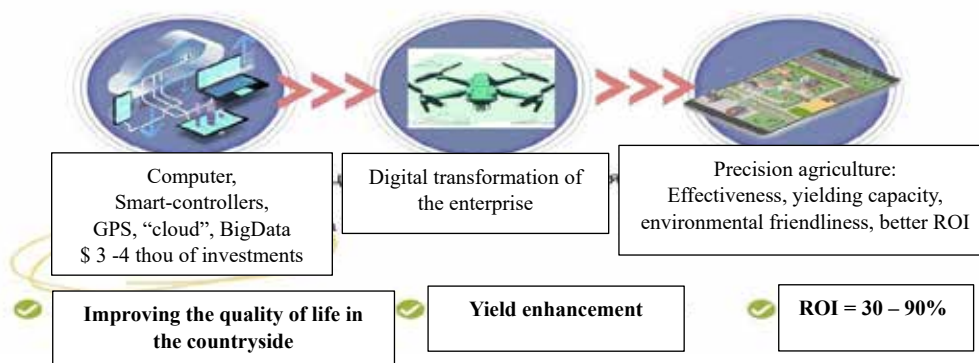


Figure 1 – Digitization of Agricultural Production Using a Cyber Drone

Source: developed by the author based on [13]

guarantees of product sales. Therefore, the use of popular marketplaces claims careful consideration and analysis of its effectiveness. Thus, another important factor should be noted – the development of digital technologies is so rapid that it requires special professional attention, the organization of a special department at the enterprise, which would become the stimulus of sales and promotion of SME products to local and global markets. However, the question becomes in turn of great dependence of the enterprise success on the qualifications and professional qualities of such specialists, who would combine knowledge of marketing technologies, digital literacy at the level of a high-class user, knowledge of foreign languages, legal aspects of international business operations and the ability to understand the production and manufacturing procedure of one's own enterprise. I will give an example.

In 2016, a new technology for using chatbots in messengers to promote the products of small and medium-sized enterprises quickly entered the market. The most convenient platform for the average user was offered by the Smart-Sender aggregator, which was quite aggressively promoted on the market of digital services by several Ukrainian educational companies. At the same time, the effectiveness of this technology was not proven and was even hidden by its propagandists. Entrepreneurs who were tempted to develop and implement these chatbots with sales funnels were forced to invest several thousand dollars (in the hryvnia equivalent) in the training of a specialist, spend on a subscription to use the platform, create an administration system and other unforeseen costs. The upshot was that the technology deceives expectations, because it required significant resources to support it. Moreover, the owner of the platform turned out to be a Russian counterparty, which

ceased to perform system support duties. And above all, since 2020, popular messengers have introduced a system of built-in chatbots that any subject can use for free. This example demonstrates that a digital portfolio of offers for online commerce should be carefully examined and analyzed by a qualified specialist who will take responsibility for the company's e-marketing strategy and minimize risks.

The war of the Russian Federation against Ukraine caused disturbances in the business environment. Many companies lost real business partners, supply and sales logistics were destroyed at once. And to a large extent, this encouraged small and medium-sized businesses to look for new models of promoting their products to markets, including foreign ones, with the help of electronic commerce.

It is worth emphasizing that the Ukrainian segment of SMEs has been using online channels for the development and promotion of their business for a long time, but in the vast majority it is ineffective. The author conducted an anonymous survey of managers and top managers of 21 manufacturing enterprises in Zaporizhzhia (6), Dnipro (5), Vinnytsia (3), Lviv (4), Lutsk (2), Khmelnytskyi (1). According to the results of an anonymous survey, it seems fair to say that online channels for the presentation and promotion of products of own production are poorly used and rather unsuccessful (Table 1). At the same time, one hundred percent of managers/owners understand this and intend to develop this area.

It is interesting to note that among the managers of SMEs in the survey, online communication is used to a greater extent by small manufacturers: one hundred percent work with marketplaces, more than 70% – with social

Table 1 – Results of an anonymous survey of SME managers

1	Enterprise category (small, medium, manufacturing, services)	14 small, manufacturing	7 medium, manufacturing
2	Number of employees	up to 50	up to 250
3	Production turnover, million hryvnias	up to 10 mln	up to 50 mln
4	Do you export products?	1 enterprise	2 enterprise
5	The number of countries to which you deliver the goods	1	2
6	What online marketing channels do you use:		
	marketplaces	14	3
	brand website	0	2
	own site	6	7
	social networks	11	1
	messengers	4	0
	electronic mailing of letters	1	3
	chat bots	0	0
	influencers	0	0
	involve AI	0	0
7	Who is engaged in digital marketing		
	agent of influence	0	2
	marketing expert	12	4
	marketing department	0	3
	business owner/manager	2	
8	Do you plan to expand the area of digital online marketing	14	7

Source: developed by the author based on the generated questionnaire

networks, a small part – with messengers. But the average business prefers its own websites, and a little less than half of the respondents even use mailing services, the effectiveness of which has fallen dramatically low in the last few years. The vast majority of small businesses have a marketing specialist, but 2 out of 14 wrote that they do e-commerce on their own. Only 2 out of 7 surveyed medium-sized manufacturers delegated the function of marketing area to third-party professional companies, using outsourcing to minimize costs. However, the lack of effectiveness of this tactic is indirectly confirmed by the intention to develop online sales. That is, we can conclude that online channels for the sale of goods for SMEs still remain an additional tool of marketing strategies in contrast to traditional sales. Moreover, the online communication of domestic entrepreneurship is rather poor and does not use the most effective sales channels. Among the popular areas in SMEs, the groups highlighted below (Fig. 2) are used.

Not all digital communication channels are used by SMEs in their operational activities. Obviously, this is related to the objective and subjective characteristics of the application, which generally affects the success of companies' promotion to international markets. Let's sort out each group separately.

Marketplaces. Merchandise platforms, which concentrate a wide range of products from manufacturers of local markets on their areas, improve their services every year: from the search system to the possibility of online payment by the buyer with calculations for the "goods basket", delivery and commissions for the platform. Moreover, each platform initiates its own marketing strategy with a discount system, bonus and accumulative discounts, gift certificates and multi-layered advertising communications.

That is, a part of the costs for advertising campaigns is taken over by the marketplace. The platform is largely responsible for shaping supply and demand. Popular trade aggregators among Ukrainian consumers are Amazon, eBay, Alibaba, Rakuten, Walmart, and others. All marketplaces are actively implementing artificial intelligence technologies, which makes sales more effective

and targeted by creating a purchase history and customer portrait of the buyer. Research by scientists on the use of marketplaces when entering new foreign sales markets has shown the effectiveness of such tactics primarily for forming a price offer and determining regional demand for certain categories of products. This is, so to speak, the hook that grabs the consumer's interest and provides a basis for marketing analytics, which forms a strategy for advancing to global markets and consolidating one's positions. Popular marketplaces used by Ukrainian exporters are listed below (Fig. 3).

When choosing an electronic trading platform, companies that plan to export their products to international markets shall take account of the differentiation of such resources. In this way, the strategy of finding the target audience of consumers is going to be implemented. Furthermore, the specialized marketplaces provide qualified information about licensing conditions, regulatory barrier, prohibited positions for sale in a particular country, and other specific restrictions. For example, for the import and sale of apples in Poland, there are strict standards that regulate the color, size of the fruit stalk, and the size of the fruit. Many products require international quality certificates and certification in the country of sale. And this applies not only to products of the food industry, but also to goods of general or industrial consumption. Labeling and packaging standards shall be as well taken into account, otherwise the goods will just be prohibited for sale. It is also important to study the rules of calculations offered by this or that marketplace: commissions charged by the online resource, delivery logistics and its pricing calculation, support for online orders and the business pattern of reference client resources, processing of orders and complaints. A careful study of regional marketplaces is necessary in order to bring your commercial interests closer to the local buyer, bypassing the permanent psychological stereotype of the client, who finds shopping in global trade networks difficult and long-term ones, and for a certain category – unreliable and too risky. The principle is as follows: if you plan to sell in Germany, you use German marketplaces,

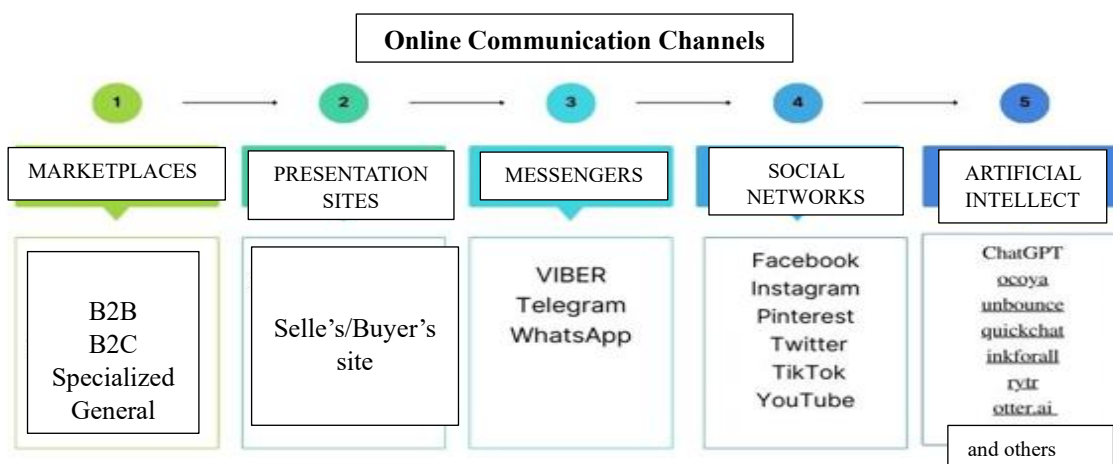


Figure 2 – Online channels used by SMEs

Source: developed by the author based on an anonymous survey of SME representatives



Figure 3 – Marketplaces that are popular in Ukraine

Source: developed by the author on the basis of research materials [14]

in Brazil – Brazilian ones, in the northern EU countries – Dutch ones. It is unquestionably, that the use of regional marketplaces is necessary in your strategies.

e-commerce. It should be emphasized that with the introduction of 3-4G wireless communication technology in Ukraine, the mobile e-commerce segment has grown significantly, the number of trade transactions in this segment is growing by 27% every year. This is a key growth driver for businesses in the SME sector. In addition, scientists of the Ukrainian Institute of the Future outline other opportunities for the development of e-commerce for SMEs [15]: extension of payment methods; use of electronic money; online lending; smart logistics and related services; improvement of digital skills of citizens; development of cross-border e-commerce; standardization and interoperability.

It is worth mentioning that the last point – standardization – is quite sensitive for the construction of a strategy for the introduction of Ukrainian products to international markets and requires comprehensive state solutions. Businesses use digital applications and platforms that are developed by many IT companies, and in most cases these companies use their own data standards. This results in incompatibility with standardized international platforms and leads to operational losses and significant security risks. The economic environment requires not only the

standardization of interoperability of API, but as well the harmonization of all data formats, including metadata. The government is already working on this problem, introducing the harmonization of technical regulations with the EU and the transition of all links to international standards, but the Russian Federation’s war against Ukraine has slowed down this process. However, Ukrainian SMEs should invest in the development of their own e-commerce, develop innovative strategies for the introduction of online channels and create conditions for entering international markets for cross-border e-commerce.

Conclusion

Ukrainian business should focus more attention on the involvement of the latest technologies in its production processes. However, particularly in the days of bitter trials caused by the war of the Russian Federation against Ukraine, digitalization technologies may become the key to overcome the crisis and a way to increase competitiveness in the domestic market, as well as advance to foreign markets. Digitization should become the principal strategy of both the state and business in all areas of production. The reconstruction of Ukraine should take place on the basis of the latest philosophy of industrial and entrepreneurial activity. Not until then will Ukraine have a real chance to join the ranks of the world’s developed economies.

References

1. Enhancing the Contributions of SMEs in a Global and Digitalised Economy. OECD. 2017. URL: <https://www.oecd.org/industry/C-MIN-2017-8-EN.pdf>.
2. Akcaoglu E. Small Firm International Entrepreneurship / E. Akcaoglu, R. Wehner. // Würzburg International Business Forum International Business Conference. – 2019. – P. 82.
3. Shevchenko I. O. Adaptation of the Business Model of Ukrainian Enterprises to Digital Trade on Global Markets. Abstracts of VII International Scientific and Practical Conference Bordeaux, France (December 12 – 14, 2022). URL: <https://eu-conf.com/wp-content/uploads/2022/12/Theoretical-methods-and-improvement-of-science.pdf#page=69>
4. Gensler S., Dekimpe M. G. and Sciera, B. (), Evaluating Channel Performance in a Multichannel Environment”, Journal of Retail and Consumer Services, 2007, no. 14 (1), PP. 17–23.

5. Fang-Fang Tang and Xiaolin Xing, “Will the Rise of Multi-Channel Retailing Reduce Pricing Efficiency” Elsevier Advanced Technology Publications; 2001, URL:<https://go.gale.com/ps/i.do?id=GALE%7CA79030436&sid=google Scholar&v=2.1&it=r&linkaccess=abs&issn=00224359&p=AONE&sw=w&userGroupName=anon%7E57790d4b&aty=open-web-entry>
6. Laroche, M., Kiani, I., Economakis, N. and Richard, M. O. (2013), “The Impact of Multi-Channel Marketing on Online Consumer Search Behavior: the Power of Multiple Connection Points”; Elsevier Advanced Technology Publications; 2014, URL: https://www.researchgate.net/publication/275910270_Effects_of_Multi-Channel_Marketing_on_Consumers'_Online_Search_Behavior_The_Power_of_Multiple_Points_of_Connection
7. Chatterjee S. and Kar A. K., “Why SMEs Use Social Media Marketing and What Is the Impact: Empirical Insights from India” International Journal of Information Management; 2020, no. 53, URL: https://e-tarjome.com/storage/panel/fileuploads/2020-05-03/1588493215_E14802-e-tarjome.pdf
8. Martin Thomas, The Financial Times Guide to Social Media Strategy; Fabula, 2020, ISBN 9786170964915, p. 390.
9. K.V. Shymanska, Ph.D. in Economics, Associate Professor V. V. Bondarchuk, Ph.D. in Economics, Associate Professor, State University “Zhytomyr Polytechnic”, “Analysis of Marketing Possibilities of Using Online Channels for Promoting Products to Foreign Markets by Ukrainian SMEs”; 2022; ISSN 2664-245X No. 1 (99) URL: [https://doi.org/10.26642/jen-2022-1\(99\)-49-56](https://doi.org/10.26642/jen-2022-1(99)-49-56)
10. Lavrynenko S., Kharchenko S., Mislurova K., Management of Innovative Development of Enterprises: Theoretical Aspect. Abstracts of VII International Scientific and Practical Conference Bordeaux, France (December 12-14, 2022). – P.P. 125-129. URL: <https://eu-conf.com/wp-content/uploads/2022/12/Theoretical-methods-and-improvement-of-science.pdf#page=69>
11. Tserkovna A. V., Karelova K. S. The Influence of Digitalization on the Development of Small and Medium-sized Businesses in Ukraine. ISSN 2413-9998 Market Economy: Modern Management Theory and Practice. Volume 19. Issue 2 (45) – P. P.328-339.
12. Kateryna Markevich. Digitization: Benefits and Ways to Overcome Challenges. Razumkov Center. September 6, 2021. URL: <https://razumkov.org.ua/statti/tsyfrovizatsiia-perevagy-ta-shliakhy-podolannia-vyklykiv>
13. Fishchuk V., Matlushko V., Chernev E. Ukraine 2030 – a Country with a Developed Digital Economy. Ukrainian Institute of the Future. 2020. URL: <https://strategy.uifuture.org/kraina-z-foventoyu-cifrovoyu-ekonomikoyu.html> (accessed on: August 02, 2023).
14. Yrjölä M., Saarijärvi H., and Nummela H., “The Value Propositions of Multi-, Cross-, and Omni-channel Retailing”, International Journal of Retail & Distribution Management, 2018, No. 46 (11–12), P. P. 1133–1152.
15. “Digital Agenda of Ukraine”, (“Digital agenda – 2020”), – GS “HI-TECH OFFICE UKRAINE”, 2017, URL: <https://www.slideshare.net/tsnua/ss-72226573>