

Marketing Strategy of the Small Business Adaptation to Quarantine Limitations in the Sphere of Trade Entrepreneurship

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Abstract

The article considers the peculiarities of developing a marketing strategy for the adaptation of small businesses to quarantine restrictions in the field of commercial entrepreneurship. The importance of reformatting the existing marketing strategy in connection with the change of key conditions of trade activity with the introduction of quarantine restrictions due to the covid-19 virus epidemic is substantiated. Quarantine restrictions and the temporary introduction of lockdown in various countries around the world, including Ukraine, have not only caused a crisis for small businesses. But they became a shock therapy and accelerated the digitalization of retail. Trends in digitalization and development of digital infrastructure allow both to adapt the structures of commercial entrepreneurship to the current conditions, and set directions for development in the long run. Particular attention in the article is paid to changing the business model and automation of sales processes based on the introduction of vending. The preconditions and existing experience of vending in Ukraine are analyzed. An outline of the business model of the project for the sale of goods through vending machines has been developed.

Key words:

marketing strategy, digitalization, digital consumer behavior, trade entrepreneurship, retail, quarantine restrictions, covid-19, vending.

1. Introduction

Marketing development strategy is one of the main factors of stability and success in the field of trade entrepreneurship. However, due to the unusual for the world business conditions, in which companies have been since 2020, the principles of classical marketing have proved ineffective, and in some cases - not working. An important aspect of the implementation of marketing strategy are the mechanisms of interaction of the three components of sustainable development:

- stabilization and economic development of trade entrepreneurship;
- satisfaction of social needs and social responsibility;

- ecological and epidemiological safety of trade entrepreneurship, ensuring energy saving and energy efficiency in the implementation of marketing development strategy.

Taking into account the global trend of digitalization is becoming not only mandatory, but also a factor in surviving quarantine restrictions. Studies of consumer behavior show that it is becoming increasingly digital. These trends have only intensified with the introduction of quarantine restrictions, as digital channels are the only way to connect with the outside world in lockdown and isolation. Accordingly, more and more people are meeting their consumer needs through the Internet, and the increase in online shopping is no exception.

The aim of the article is to study marketing strategy adaptation of small business in the field of trade entrepreneurship in the face of the constraints caused by the Covid-19.

2. Literature review

Small business is an activator of sectoral transformations in the economy that creates an effective competitive environment and additional revenues to the budgets of all levels. In today's pandemic period, small business needs to find ways to adapt to quarantine restrictions and develop appropriate marketing strategies. Many scientific researches of famous scientists are devoted to the issues of small business development, among which: Abramova A. (2021) [1]; Adeola O. (2021) [2]; Akpan I. (2021) [3]; Berezina A. (2021) [4]; Burov V. (2021) [5]; Derhaliuk M. (2021) [6]; Fedyshyn M. (2019) [7]; Fuchs K. (2021) [8]; Grigoraş-Ichim C. (2018) [9]; Istryarini W. (2020) [10]; Ivanova T. (2021) [11]; Butko M. (2016) [12]; Kublitska O. (2021) [13]; Kholiavko N. (2020) [14]; Grosu V. (2021) [15]; Korneeva E. (2021) [16]; Marrucci L. (2021) [17]; Matkovskaya Y. (2021) [18]; Meramveliotakis G. (2021) [19]; Ostrovskiy V. (2021) [20]; Warsofsky N. (2021) [21]; Pitayachaval P. (2021) [22]; Rakhimova S. (2021) [23];

Ramazanov I.A. (2021) [24]; Samiilenko H. (2021) [25,26]; Saputera D. (2021) [27]; Taufik M. (2021) [28]; Tulchinskiy R. (2021) [29]; Verchenko Y. (2021) [30]; Vovk O. (2021) [31]; Yaremovich P. (2021) [32]; Zakharin S. (2021) [33] and others.

According to the study [28], the authors use an approach to content analysis to investigate the implementation of Islamic marketing ethics in the dissemination of business advertising. The study found that advertising of more than 90% of entrepreneurs meets the basic principles of Islamic marketing ethics.

In order to increase the activity and increase the number of small businesses, according to the authors [10], it is necessary to introduce digital media to increase their sales. Scientists identify problematic issues, including the problem of choosing the most effective media. In this article, the authors explore the most effective digital media (marketplace) for marketing media businesses.

The authors [21] argue that in today's world the importance of small and medium-sized businesses in the structure of national economies of most countries is growing. According to scientists, SMEs, which are characterized by flexibility and ability to adapt, as well as quickly reorganize in the face of modern challenges, are the basis and guarantee of accelerated socio-economic growth.

The article [19] is based on the opinion that small business is the engine of wealth and prosperity of the country. The authors consider the existence of a significant share of small business in the Greek economy as a structural barrier to economic growth and prosperity. According to the study, without proper support from the state, only those entrepreneurs who are quite successful in the market will be able to survive in the market, and the vast majority of small firms will leave the market.

The purpose of the article [30] is to analyze the activities of small business confectioneries and justify the need to adjust the marketing strategy in modern conditions. The authors propose strategies for the development of small businesses in the confectionery industry, developed and substantiated a systematic approach to assessing strategic development.

The study [5] analyzes the development of small business in the construction industry and examines government mechanisms to support it through the operation of business networks. As a result of the study, scientists eradicate the problems of the business structures of the construction industry and predict the possible consequences of their activities in the shadow sector of the

economy. It is proved that small business is a driver of growth of socio-economic development of the region.

The purpose of the article [22] was to study the current state of factors in the development of small and medium enterprises in northeastern Thailand. Researchers analyzed and investigated possible measures for the development of small and medium enterprises. The authors note that the national development strategy until 2037 provides for economic development based on modern entrepreneurs and the creation of smart entrepreneurs; providing access to information about financial services, market, data; adjusting the role of entrepreneurs and public institutions and opportunities for access to public services.

Researchers [16] are exploring the role of small business in promoting sustainable development through its actions, public and social consciousness and responsibility. The authors proved that small and medium-sized enterprises can be a decisive force in the fight against climate change and the promotion of environmental thinking, which will directly affect the achievement of sustainable development goals.

The aim of the research [2] is to study the critical factors that contribute to the development of small business and directly affect the achievement of the UN SDGs in the Nigerian market using the Lucie model. The authors of the study claim that the results of their work will help entrepreneurs to avoid failures and achieve UN SDC 1, 2, 8 and 10. Scientists have proven the global validity of the Lucier model, the use of which is relevant in both emerging and already developed markets.

In the article [24], the authors prove that domestic and global information and communication resources in combination with digital tools help to create conditions for successful online transformation of small, micro, individual and family businesses and self-employed in the distribution sector on single digital platforms. According to the authors, the C2C market, which is based on global digital platforms, is an effective method of online transformation of business structures.

3. Results

Today, it is extremely necessary for companies in the field of trade to rethink the principles of marketing, transform the existing business model, and identify the dominants of this process, which are due to current global trends (Fig. 1).

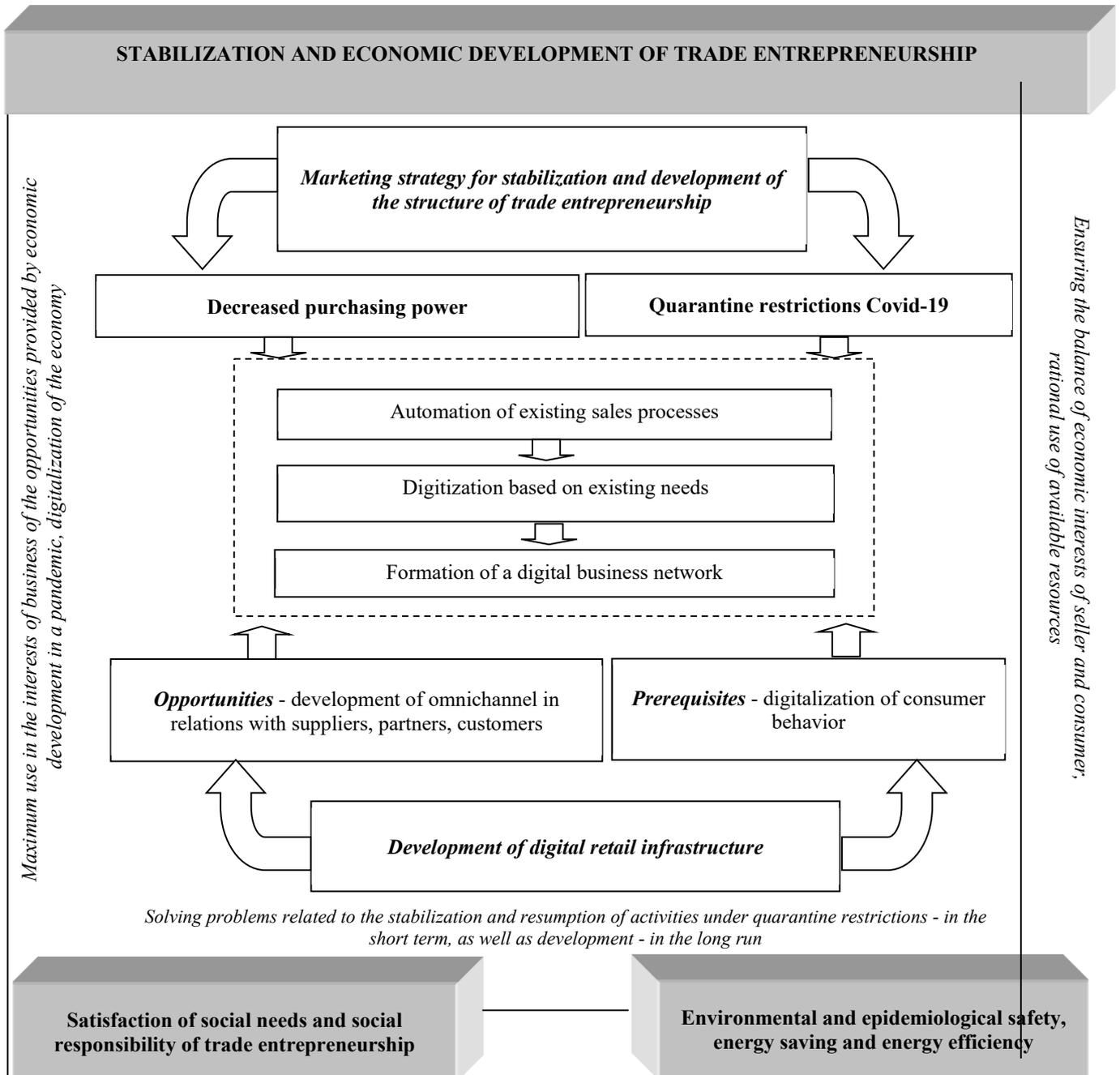


Fig. 1 The concept of strategic marketing development of commercial entrepreneurship

Source: compiled by the authors.

The indicator of "digital maturity" of the client has become one of the main criteria for making strategic marketing decisions in the field of commercial entrepreneurship. Factors that contribute to the

development of this characteristic should be included in the marketing strategy, and the directions of digitalization of retail are shown in Fig. 2.

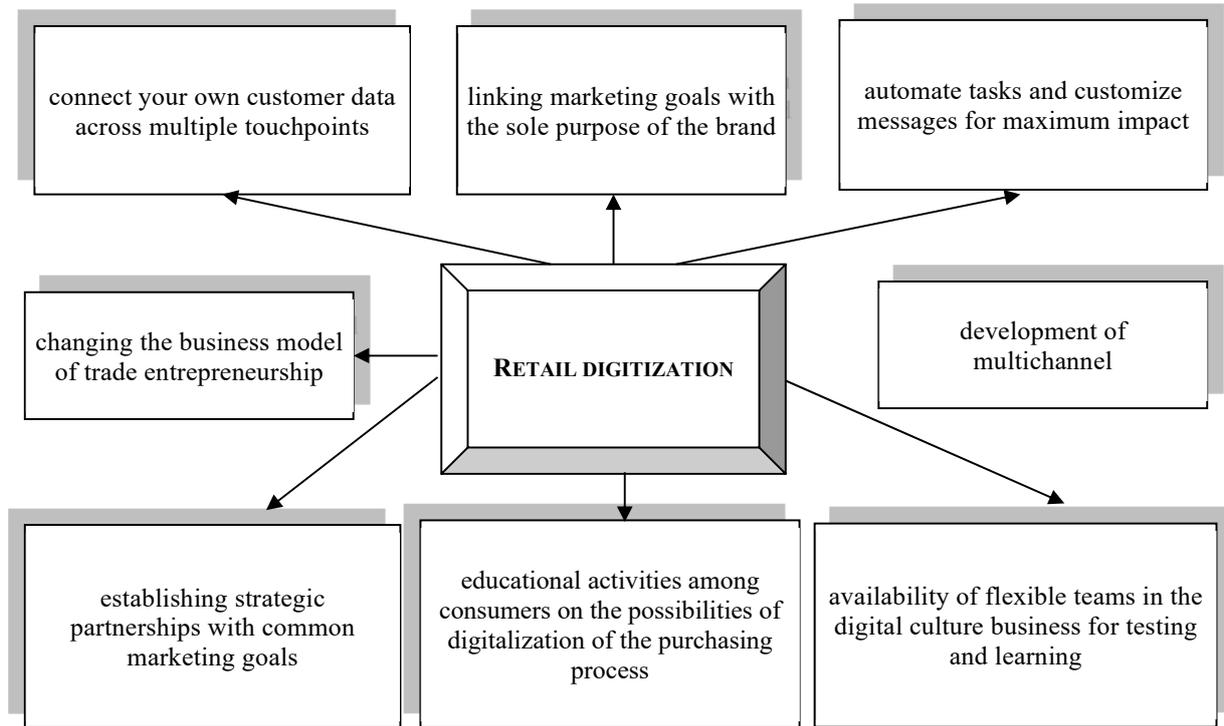


Fig. 2 Factors of digitalization in the formation of marketing strategy of commercial entrepreneurship

Source: compiled by the authors.

Consider one of the areas of change in the business model of commercial entrepreneurship and automation of sales processes based on the introduction of vending. This type of business model in the field of retail has long been implemented in world practice, and with the introduction of quarantine restrictions and the concern of all participants in the trade process for epidemiological safety, is only gaining momentum.

Unfortunately, the Ukrainian vending market is only developing and there are very few companies working in this field. This market allows small businesses to master it more freely without fear of obstacles that are mostly created by powerful companies. The main representatives of Ukrainian vending companies are listed in Table 1.

Table 1: Characteristics of the leading Ukrainian brands in the industry

Brand	Logotype	Brief description	Production facilities
TM UniPay		Intelligent Vending Systems LLC, UniPay TM is a company that has been successfully implementing vending technologies since 2008. The company specializes in the development of a universal electronic platform, which reduces the time of designing a new vending machine in the shortest possible time. The company operates in a closed technological cycle	Installed terminals: more than 1000 payment; more than 360 for water; more than 125 parking systems and parking meters.
VENDIBOARD		VENDIBOARD - new generation vending machines that will sell your products. We create equipment and software for automated trading.	No data available

"Wash-Ka!"		LLC "SPS Postiray-Ka!" - a new type of vending business - organization of self-service laundry points based on the company's equipment.	230 washing machines in Kyiv; It is also located in other cities of Ukraine and abroad.
GWater		GWater is a manufacturer of vending machines for drinking water.	413 submachine guns are located in 49 cities of Ukraine; has 152 partners
AVANGARD		AVANGARD is a manufacturer of vending equipment in Ukraine. AVANGARD is a company with a full cycle of metal processing, powder coating and numerical control machines. Production quality processes at the plant are confirmed by international certificates ISO, CE. To solve the complex problems of retail automation, we have combined an individual design approach, a strong engineering base and high-tech full-cycle production. 18 years of production experience has made us experts in the field of vending. AVANGARD is a member of the European Vending Association EVA.	20457 devices were produced; 648 customers in 9 countries

Source: developed by the authors based on the source [34-37].

According to the information received, it is very difficult to make a top among Ukrainian vending companies. The reason is that doing business in this business, namely trading through vending machines, refers to such an economic activity as "other types of retail trade outside stores", which does not allow to single out trade through vending machines.

Consumers are the main judges of the brand; it is their attitude to a particular brand reflects its value to society. Knowledge of the types of decisions and patterns of consumer behavior to a particular brand characterizes its position in the market. Types of decisions and models of consumer behavior of Ukrainian brands are shown in Table 2.

Table 2: Types of decisions and patterns of consumer behavior of brand products

Brand	Types of purchasing decisions	Models of consumer behavior according to the duration of decision-making
TM UniPay	From the business side: - thought out (cognitive).	From the business side: - a long process from the end user: - limited process; - instant purchase.
VENDIBOARD	From the end user: - thought out (cognitive). - reflex;	
AVANGARD	- impulsive; - partially thought out.	
"Wash-Ka!"	From the business side: - thought out (cognitive). From the end user: - thought out (cognitive); - reflex; - impulsive;	
GWater	From the business side: - thought out (cognitive). From the end user: - reflex; - impulsive; - partially thought out.	

Source: developed by the authors.

Because vending machines are a specific product used by both businesses for their business and end users, their solutions and behaviors differ. It is very difficult to

single out certain emotional and other factors that lead to a purchase, because a huge number of goods and services are sold through trade devices. One thing can be said,

every decision and pattern of behavior depends on the type of apparatus and goods or services that are implemented through it. This applies to the brands TM UniPay, VENDIBOARD and AVANGARD because they are engaged in the production of devices in various fields.

The brands "Wash-Ka!" and GWater are one line of business and identify the types of consumer decisions easier.

In the brand "Wash-Ka!" all consumers mostly make informed decisions, because to use washing machines you need to prepare in advance. Exceptions are possible in the direction of impulsive action due to certain circumstances

(dry clothes after rain or wash dirty clothes without running home, etc.).

In the GWater brand, all consumers make spontaneous decisions based on a situation or habit. This is due to the fact that the company sells water and buys it mostly if you want to drink. Because of this, consumers do not take into account most of the criteria by which other goods are purchased (price, size, volume, taste, etc.).

On the basis of the analysis of the market of brands of vending machines the factors of influence on volumes of demand of production and their characteristics are defined. The obtained data are shown in table 3.

Table 3: Factors influencing the demand for products

Influencing factors	
Internal	External
<ul style="list-style-type: none"> - quality; - functionality; - related services; - maintenance, its quality and speed; - price; 	<ul style="list-style-type: none"> - positioning of the enterprise on the market; - average level of wages; - tax policy of the state; - number of competitors; - social and economic condition of the population;
<ul style="list-style-type: none"> - innovation of the used technologies; - product innovation; - qualification of engineering and technical personnel; - effectiveness of marketing activities; - ease of use. 	<ul style="list-style-type: none"> - average market price per 1 m2 of leased space; - state of the electricity market; - state policy on small and medium business; - average market price per 1 Kv of electricity; - interest of citizens in the use of vending machines; - requirements of citizens to vending machines.

Source: developed by the authors.

Depending on the ratio of supply and demand for a particular product in the market there are two opposite situations: "seller's market" and "buyer's market". At the same time, the market is likely to have a relative balance of supply and demand. An indicator of the degree of perfection of the market is the equilibrium price for a particular product, for which there is no shortage or

surplus. The sooner it is installed, the more perfect the market is.

On the basis of the analysis of the market of brands of vending machines the factors of influence on volumes of demand of production are defined and their characteristics are given. The research results are shown in Figure 3.

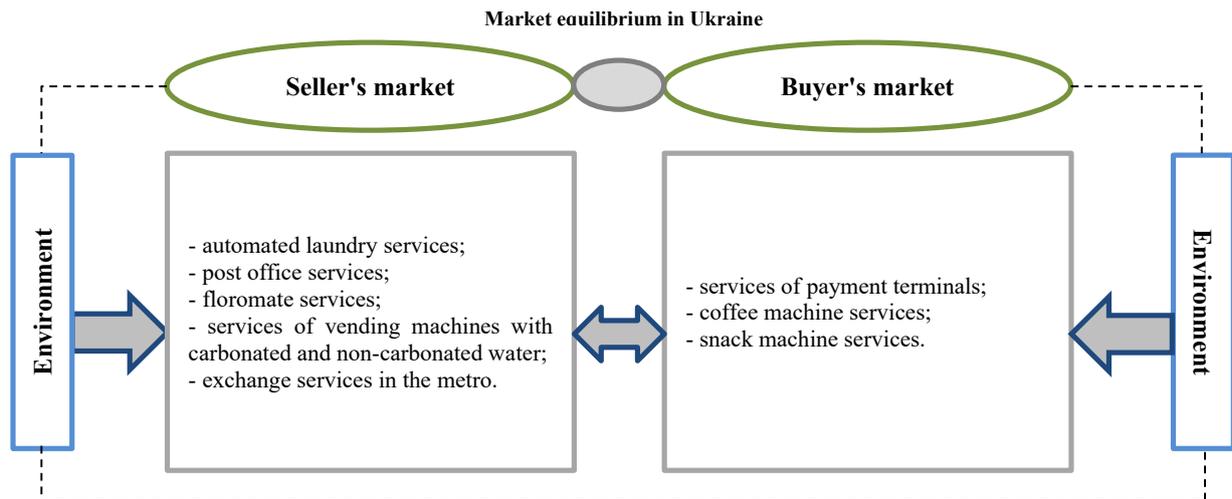


Fig. 3 State of the vending machine brands market in Ukraine

Source: compiled by the authors.

According to Figure 3, we can conclude that the market is in a state of advantage of the "Seller's Market". This situation allows companies to dictate their market conditions.

Despite the fact that the indicators of the domestic market for trade through vending machines to the current state can not be determined, it is possible to obtain information on exports / imports of these devices to Ukraine. This is possible because in external activities the devices are under the code UKTZED 8476 "Vending Machines".

Analyzing the statistical data from 2011 to 2019, it was found that the balance in 2011 amounted to -2362 thousand dollars. USA, in 2015 amounted to -1317 thousand dollars. USA. The reason for this was most likely that the country began to change its direction towards Europe and this, in turn, led to a change in economic and political situation. However, in 2017 the balance increased to a record -3886 thousand dollars. USA, which was the worst indicator for the analyzed period of years. In 2019, the balance decreased its negative value to -3479 thousand dollars. USA, which indicates a slight but still improving economic situation [38].

Negative indicators indicate the lack of necessary vending machines in the Ukrainian market, or the lack of their competitive advantages over similar devices from foreign manufacturers.

Based on the data on the total volume of imports and exports in terms of commodity items, a study of statistical

data was conducted to determine the main counterparty countries.

Analyzing the statistics of Ukraine's Foreign Trade for 2011-2019, it was found that for the period from 2011 to 2014 one of the main contractors of imports of goods were the Russian Federation (share 21.79-39.78%) and Italy (share 41, 09-50.80%) and among exporters the Russian Federation (share 33.53-56.02%) and Canada (share 19.67-47.12%). In 2014, the indicators of imports and exports with the Russian Federation decreased (to 6.67% and 14.82%, respectively) and imports from Italy and exports from Canada, on the contrary, increased (69.69% and 37.19%, respectively). The reason is the war in eastern Ukraine and the occupation of Crimea, which led to the termination of economic ties with the Russian Federation [38].

After 2014, the economic direction changed and the main importer remained Italy, and in addition China. Exports, in turn, went to the EU.

In the future, we analyzed the regional market of Chernihiv. In our opinion, it demonstrates excellent prospects for the development and prosperity of the vending business. The reason for this is very little competition and economic growth in the region. This is evidenced by data from the State Statistics Service. The first indicator that was considered was "Retail turnover in the Chernihiv region" (Fig. 4).

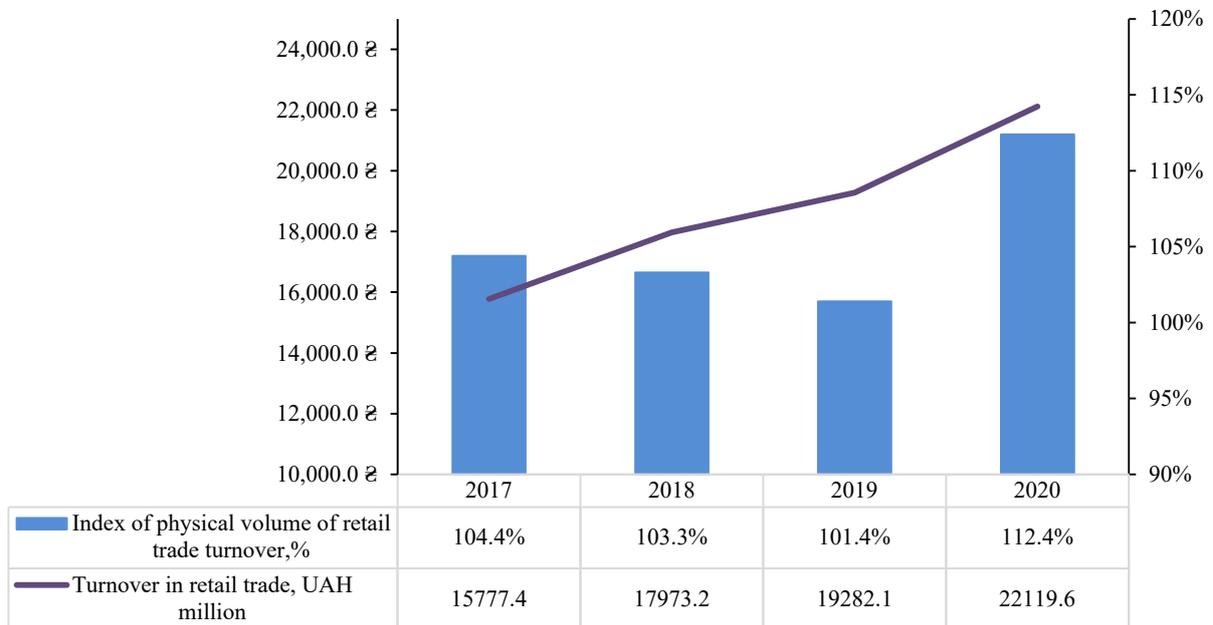


Fig. 4 Retail turnover in the Chernihiv region (2017-2020)

Source: compiled by the authors on based [38].

As we can see, in 2020 the growth is very high, which indicates an increase in cash flow compared to previous years. This is due to the fact that most people have begun to withdraw their funds from storage, which in turn will stimulate the economy.

The next indicator that was considered was the "Regional structure of retail trade turnover of retail trade

enterprises". This indicator makes it possible to determine how much turnover has increased and whether it is profitable to conduct retail trade in terms of purchasing power of the population. Data from the State Statistics Service are shown in Fig. 5.

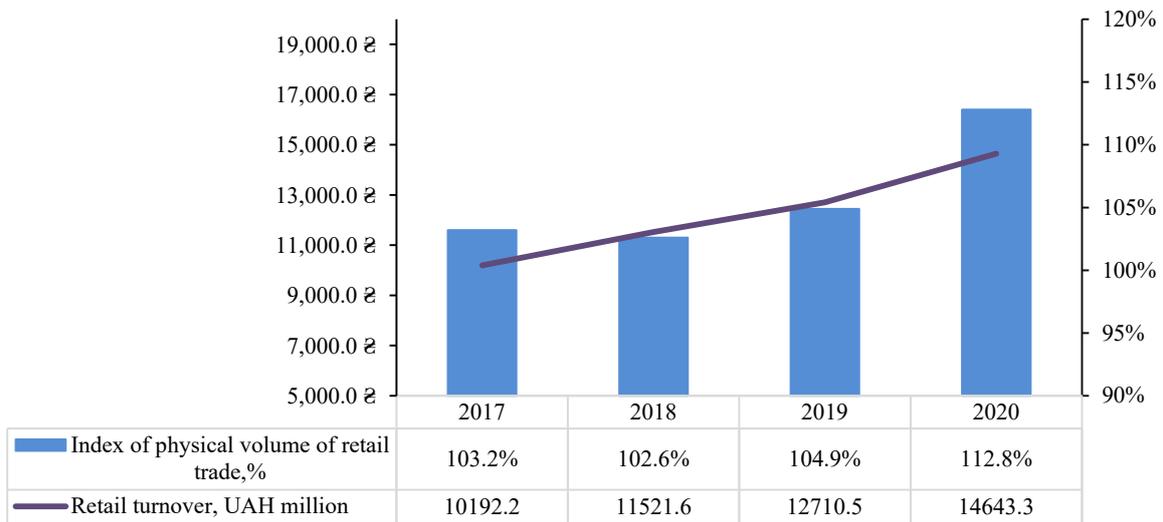


Fig. 5 Regional structure of retail trade turnover of retail trade enterprises (2017-2020)

Source: compiled by the authors on based [38].

The macroeconomic indicator of the "Regional structure of retail trade turnover" is perhaps the most important indicator that allows you to assess market

prospects. This indicator shows the amount of working capital, which in turn allows us to determine the economic growth of the market and its attractiveness (Fig. 6).

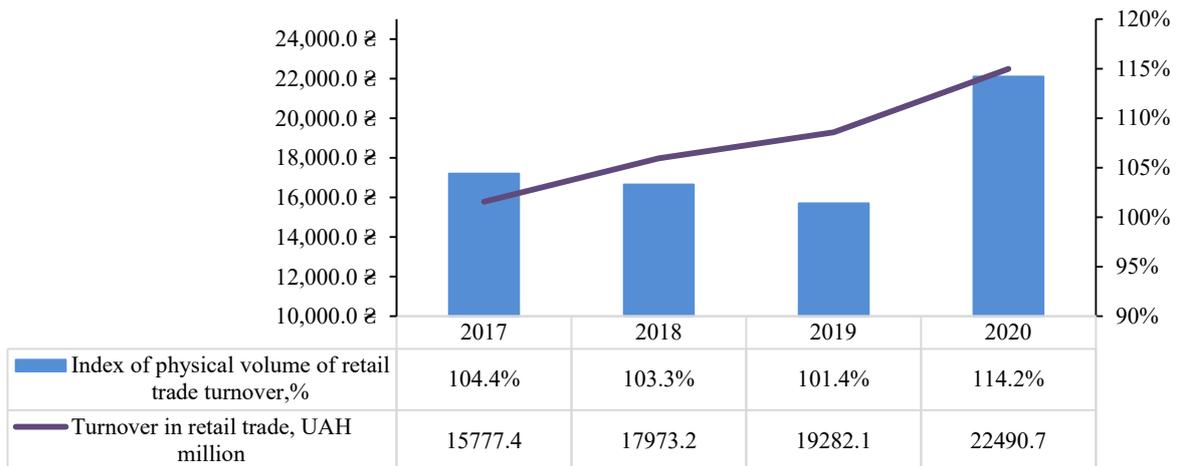


Fig. 6 Regional structure of retail trade turnover (2017-2020)

Source: compiled by the authors on based [38].

As we can see, retail trade and retail trade are growing at a significant pace despite the anti-epidemic measures and quarantines in 2019. This result indicates the adaptation of entrepreneurs to new conditions and development of the region. Growth of 12.8% is a very good indicator.

The volume of retail trade in Ukraine in March 2021 increased to 13.1% (compared to March 2020). According to the results of the first quarter, retail trade increased by 7.5% compared to the same period last year [39].

The positive dynamics of the industry, first of all, was supported by the restoration of economic activity in most areas of the economy under adaptive quarantine, as well as stimulating consumer demand in view of increasing social standards.

Thus, from January 1 of this year, the minimum wage increased (from 5,000 hryvnias at the end of 2020 to 6,000 hryvnias from January 2021), from March 1, recalculation and indexation of pensions for almost 10 million citizens was carried out (including age, service) years, disability due to loss of a breadwinner [39].

In addition, the financial support of business and the population from the state had a positive impact on retail trade. In particular, during the winter lockdown more than 470 thousand private individuals and employees received assistance [39].

In the regional context, in January-March 2021, the dynamics of the retail segment of the domestic market in all regions was positive, including in 12 regions the indicator exceeded the value for Ukraine as a whole. Since the beginning of the year, the volume of retail trade has increased the most - by more than 10% in Kyiv, Chernivtsi, Chernihiv, Vinnytsia, Ternopil regions [39].

The growth of retail trade in the Chernihiv region is an important indicator for the introduction of vending trade. It is the increase in purchasing power and low competition that should encourage investment and development of this type of activity.

The proposed outline of the business model of the vending trade project is presented in Fig. 7.

Key partners: - enterprises-producers of goods (strategic partner); - vending companies (manufacturer-supplier); - insurance companies (suppliers / joint activities); - financial institutions (joint activities);	Key actions: - supply of goods; - maintenance of vending machines; - renting vending machines;	The main idea, value: <u>For the population:</u> round-the-clock and easy access to goods; For enterprises: provision of goods to employees and control over their use. The main idea is to save time and money for consumers.	Interaction with consumers: Relations with mass consumers are automated, with enterprises are personalized.	Consumer segments: - different segments and groups of the population; - industrial enterprises; - office centers; - trading platforms; - producers of goods
	Key resources: - material (vending machines, transport, office equipment, etc.); - intellectual; - human (office and warehouse workers, staff servicing vending machines); - financial (funds for the purchase of goods, maintenance of vending machines)		Sales channels: Vending machines of different types.	
Cost structure: 1) basic material resources (vending machines and materials for their maintenance); 2) lease of accommodation facilities; 3) transportation and storage of goods; 4) human resources; 5) relationships with consumers and partners.		Receiving funds. Fundraising: Consumers pay for the purchase of goods, which saves time; Clients (enterprises) pay for the purchase of goods (its supply), equipment rental services.		

Fig. 7 Outline of the business model of the company for the sale of goods through vending machines

Source: compiled by the authors.

Marketing development in the field of commercial entrepreneurship is an integral part of increasing profits and competitive advantages. Before implementing the proposed project aimed at stabilizing quarantine restrictions, it is necessary to plan all actions in advance

and create a map of strategic business development. It will change over time, but from the very beginning of the activity will outline the benchmarks by which the business will grow (Fig. 8).

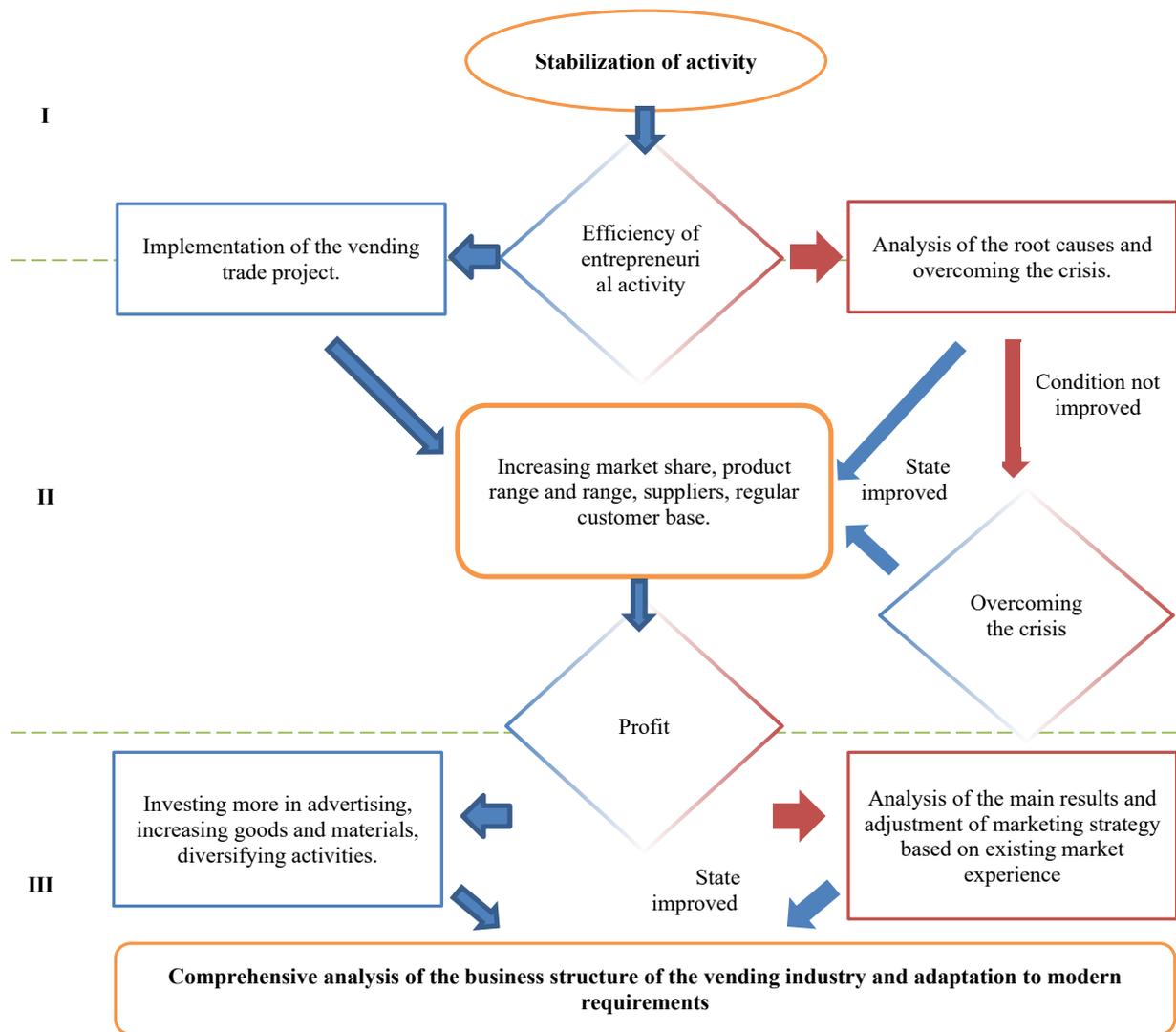


Fig. 8 Scheme of stabilization of the subject of trade business in the conditions of quarantine restrictions on the basis of realization of the project of vending trade

Source: compiled by the authors.

The proposed scheme demonstrates the importance of marketing strategy and the use of digital infrastructure in overcoming crises due to quarantine restrictions.

4. Conclusions

Maintaining balance and ensuring survival in the short term today is the main goal of most representatives of commercial entrepreneurship. However, for long-term strategic development, it is important to analyze the possibility of digital transformation at the level of the brand or retail network as a whole, as well as to begin to

form and expand access to digital infrastructure leading and sustainable position in the online sales market.

Implementation of the provisions for the integration of digital infrastructure and trade entrepreneurship will allow:

- to modernize the sphere of retail in accordance with world trends and increase the efficiency of its operation;
- better meet the needs of the market in goods and improve the quality and availability of customer service;
- ensure the speed and timeliness of delivery of goods to the final consumer;

- to improve the management system of trade enterprise development in general as a type of economic activity and individual business structures;
- increase the level of epidemiological safety and compliance with quarantine restrictions in the sale;
- reduce the operating costs of commercial enterprises and increase their economic efficiency in general.

References

- [1] Abramova, A., Shaposhnykov, K., Zhavoronok, A., Liutikov, P., Skvirskyi, I., & Lukashev, O. (2021). Ecosystem of VAT Administration in E-Commerce: Case of the Eastern Europe Countries. *Estudios de economía aplicada*, 39(5). <http://dx.doi.org/10.25115/eea.v39i5.4909>.
- [2] Adeola, O., Gyimah, P., Appiah, K.O., Lussier, R.N. (2021). Can critical success factors of small businesses in emerging markets advance UN Sustainable Development Goals? *World Journal of Entrepreneurship, Management and Sustainable Development*, 17(1), 85-105. DOI: 10.1108/WJEMSD-09-2019-0072.
- [3] Akpan, I.J., Ibidunni, A.S. (2021). Digitization and technological transformation of small business for sustainable development in the less developed and emerging economies: a research note and call for papers. *Journal of Small Business and Entrepreneurship*. DOI: 10.1080/08276331.2021.1924505.
- [4] Berezina, A., Saenko, N., Puryaev, A., Fridman, M., Artemova, E. (2021). The project approach in the development of small business in the Russian Federation. *Economic Annals-XXI*, 188(3-4), 141-148. DOI: 10.21003/ea.V188-17.
- [5] Burov, V.Y., Khokhlova, G.I., Kretova, N.V. (2021). Development of small and medium-sized businesses in the construction industry through the use of business networks. *IOP Conference Series: Earth and Environmental Science*, 751(16), 012136. DOI: 10.1088/1755-1315/751/1/012136.
- [6] Derhaliuk, M., Popelo, O., Tulchynska, S., Mashnenkov, K., Berezovskyi, D. (2021). State policy of the potential-forming space transformation in the context of the regional development intensification. *CUESTIONES POLÍTICAS*, 39(70), 80-93. DOI: 10.46398/cuestpol.3970.04.
- [7] Fedyshyn, M. F., Abramova, A. S., Zhavoronok, A. V., & Marych, M. G. (2019). Management of competitiveness of the banking services. *Financial and credit activity: problems of theory and practice*, 1(28), 64-74. <https://doi.org/10.18371/fcaptop.v1i28.163340>.
- [8] Fuchs, K. (2021). How are small businesses adapting to the new normal? Examining tourism development amid COVID-19 in Phuket. *Current Issues in Tourism*, 24(24), 3420-3424. DOI: 10.1080/13683500.2021.1942439.
- [9] Grigoraş-Ichim, C.E., Cosmulese, C.G., Savchuk, D., & Zhavoronok, A. (2018). Shaping the perception and vision of economic operators from the Romania – Ukraine – Moldova border area on interim financial reporting. *Economic Annals-XXI*, 173(9-10), 60-67. <https://doi.org/10.21003/ea.V173-10>.
- [10] Istryarini, W., Artaya, I.P., Purworusmiardi, T., Sukoco, A., Kamisutara, M., Bon, A.T. (2020). Marketplace effectiveness in increasing sales concentration of small business products during the COVID-19 pandemic. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 59, 2899-2908.
- [11] Ivanova T.B., Vardanyan A.A. (2021). Improvement estimation accuracy of futures for small business effective functional development. *CEUR Workshop Proceedings*, 2830, 1-15.
- [12] Ivanova, N., Butko, M. (2016). The Modern Trends of Infrastructure Development. *Baltic Journal of Economic Studies*, 2(3), 37-41.
- [13] Ivanova, N., Kublitska, O., Krupitsa, I., Dybchuk, L., Koval, K., & Hanieieva, T. (2021). Peculiarities of the E-commerce Development in the Conditions of Digital Economy. *IJCSNS International Journal of Computer Science and Network Security*, 21(12), 193-202. <https://doi.org/10.22937/IJCSNS.2021.21.12.28>.
- [14] Kholiavko, N., Djakona, A., Dubyna, M., Zhavoronok, A., & Lavrov, R. (2020). The higher education adaptability to the digital economy. *Bulletin of the National Academy of Sciences of the Republic of Kazakhstan*, 4(386), 294-306. <https://doi.org/10.32014/2020.2518-1467.130>.
- [15] Kholiavko, N., Grosu, V., Safonov, Yu., Zhavoronok, A., & Cosmulese, C. G. (2021). Quintuple Helix Model: Investment Aspects of Higher Education Impact on Sustainability. *Management Theory and Studies for Rural Business and Infrastructure Development*, 43(1), 111-128. <https://doi.org/10.15544/mts.2021.10>.
- [16] Korneeva, E., Skornichenko, N., Oruch, T. (2021). Small business and its place in promoting sustainable development. *E3S Web of Conferences*, 250, 06007. DOI: 10.1051/e3sconf/202125006007.
- [17] Marrucci L., Iannone F., Daddi T., Iraldo F. (2021). Antecedents of absorptive capacity in the development of circular economy business models of small and medium enterprises. *Business Strategy and the Environment*. DOI: 10.1002/bse.2908.
- [18] Matkovskaya Y.S., Belkina E.N., Balalova E.I., Nikulkina I.V., Ageeva O.A. (2021). The Development of Small and Medium High-Tech Businesses in Russia: Institutional and Infrastructural Aspects. *Lecture Notes in Networks and Systems*, 280, 513-526. DOI: 10.1007/978-3-030-80485-5_61.
- [19] Meramveliotakis, G., Manioudis, M. (2021). Sustainable development, covid-19 and small business in Greece: small is not beautiful. *Administrative Sciences*, 11(3), 90. DOI: 10.3390/ADMSCI11030090.
- [20] Ostrovskiy, V.I. (2021). Assessment of the state and prospects of development of cross-country entrepreneurship of small and medium-sized businesses in the Stavropol territory. *Lecture Notes in Networks and Systems*, 200, 930-939. DOI: 10.1007/978-3-030-69421-0_103.
- [21] Parasotskaya, N., Berezyuk, V., Prasolov, V., Nazarova, V., Mezentsseva, T. (2021). Comparative analysis of small and medium-sized businesses and its impact on the development of tourism. *Journal of Environmental Management and Tourism*, 12(6), 1586-1602. DOI: 10.14505/jemt.v12.6(54).15.
- [22] Pitayachaval, P., Putomnak, W. (2021). State of the Art Factors that Influence to Small and Medium Business Development in Northeastern of Thailand. *2021 IEEE 8th*

- International Conference on Industrial Engineering and Applications, ICIEA 2021* (pp. 265-269). 9436702. DOI: 10.1109/ICIEA52957.2021.9436702.
- [23] Rakhimova, S., Goncharenko, L., Titkov, A., Sybachin, S., Kunanbaeva, K. (2021). Development of an economic mechanism for creating sustainable regional infrastructure for supporting small businesses.enko L., Titkov A., Sybachin S., Kunanbaeva K. (2021). *E3S Web of Conferences*, 258, 06063. DOI: 10.1051/e3sconf/202125806063.
- [24] Ramazanov, I.A., Panasenko, S.V., Cheglov, V.P., Krasil'nikova, E.A., Maslova, A.E. (2021). Prospects of Small Business Development in Russian Distribution Sector in the Context of Development of Communication Technology and Trade and Information Globalisation. *Webology*, 18(Special Issue), 487-512. DOI: 10.14704/WEB/V18SI05/WEB18242.
- [25] Samiilenko, H., Ivanova, N., Shaposhnykova, I., Vasylichenko, L., Solomakha, I., & Povna, S. (2021). Corruption as a Threat to Economic Security of the Country. *IJCSNS International Journal of Computer Science and Network Security*, 21(12), 316-322. <https://doi.org/10.22937/IJCSNS.2021.21.12.44>.
- [26] Samiilenko, H., Kyrychenko, S., Kravchuk, Yu., Svinarova, H., Shevchenko, A. (2021). Assessment of Investment Potential of Regions Under the Impact of the Potential-Forming Space Transformation. *IJCSNS International Journal of Computer Science and Network Security*, 21(10), 250-256. <https://doi.org/10.22937/IJCSNS.2021.21.10.35>.
- [27] Saputera, D., Ichsan, S., Wijaya, J.H., Hendiarto, R.S. (2021). Development of Small and Medium Micro Business: A Geographical Outlook on West Java Province, Indonesia. *Review of International Geographical Education Online*, 11(1), 712-719. DOI: 10.33403/rigeo.800610.
- [28] Taufik, M.S.M., Faizal, P.R.M., Qayyum, A.R.A., Noorfazreen, M.A., Afifa, N. (2021). Applying the Islamic marketing ethics among small scale business Muslimpreneurs during Covid19 MCO: A comparison among types of social network system (SNS). *AIP Conference Proceedings Tom 2347*, 020277. DOI: 10.1063/5.0052028.
- [29] Tulchinskiy, R., Chobitok, V., Dergaliuk, M., Semenchuk, T., Tarnovska, I. (2021). Strategic Guidelines for The Intensification of Regional Development Under the Impact of Potential-Forming Determinants in the Conditions of Digitalization. *IJCSNS International Journal of Computer Science and Network Security*, 21(8), 97-104.
- [30] Verchenko, Y., Bogdanova, I., Kostoglodova, E., Kurinova, Y. (2021). Development of a strategy for the development of small business in the confectionery sector and assessment of the effectiveness of it. *E3S Web of Conferences*, 273, 08007. DOI: 10.1051/e3sconf/202127308007.
- [31] Vovk, O., Tulchynska, S., Popelo, O., Tulchinskiy, R., & Tkachenko, T. (2021). Economic and Mathematical Modeling of the Integration Impact of Modernization on Increasing the Enterprise Competitiveness. *Management Theory and Studies for Rural Business and Infrastructure Development*, 43(3), 383-389. <https://doi.org/10.15544/mts.2021.35>.
- [32] Yaremovich, P., Mykhailenko, D., Smerichevska, S., Andrushkevych, Z., Tytykalo, V. (2021). Formation of the scientific paradigm of the transformation of potentialforming space and logistics platforms of the regional economy. *IJCSNS International Journal of Computer Science and Network Security*, 21(10), 288-294. <https://doi.org/10.22937/IJCSNS.2021.21.10.41>.
- [33] Zakharin, S., Babyna, T., Natroshvili, S., Smyrnov, Y., Honcharenko, N., Obruch, H. (2021). Market and social transformations as a condition of sustainable development at the regional level: Small and medium business and it-management. *Journal of Information Technology Management*, 13, 103-114. DOI: 10.22059/JITM.2021.80740.
- [34] TM UniPay. LLC "Intelligent vending systems". <https://unipay.ua/ru/o-kompanii>.
- [35] SPS Postiray-Ka LLC. <http://postirayka.com/ru/pro-nas-2>.
- [36] GWater. Vending machine manufacturer. <https://gwater.com.ua/testpage>.
- [37] Avangard - manufacturer of vending equipment. <https://vending-solution.com>.
- [38] State Statistics Service of Ukraine: website. <http://www.ukrstat.gov.ua>.
- [39] Ministry of Economy of Ukraine: website. <https://www.me.gov.ua/News>.