UDC 33

An integrated approach to the formation of a digital strategy for the development of a virtual market

Elena M. Azaryan

Doctor of economics, Vice-Rector for Scientific Activities, Donetsk National University of Economics and Trade, 283050, 31, Shchorsa str., Donetsk, Russian Federation; e-mail: azaryan.yelenamikhaylovna@bk.ru

Oksana V. Melent'eva

Doctor of economics, Donetsk National University of Economics and Trade, 283050, 31, Shchorsa str., Donetsk, Russian Federation; e-mail: melentjeva.oksanai@yandex.ru

Abstract

The article outlines that a digital strategy is developed independently by a company and can be developed by the specialists who have the competencies important for the strategy development and predict the future transition of the main activity or individual areas of activity to the digital space or digital environment. The main prerequisites which are the driver in planning digital transformation processes and developing a digital strategy have been systematized for a company to develop and implement a digital strategy. The main virtual market growth trends have also been simultaneously presented on the basis of the proposals for development of companies in the digital space. It has been indicated that the virtual market represents a digital environment for interaction of all interested partners and promotion of products, goods and services in the digital space, which is a large-scale platform for implementation and application of digital technologies, domestic software and computer technologies for arrangement and implementation of the operations involving sale of products, goods and services. A modern classification array of the types of virtual markets has also been identified. The main elements of the virtual market formation have been identified and systematized as economic categories. It has been proposed to give the economic categories the characteristics of their use and application in classical enterprises, agencies and institutions of various forms of ownership and in the virtual market, which will unambiguously form a new approach in understanding the essence of these categories and the possibility of their further use. The current functioning of the virtual market has been assessed and the proposals have been presented regarding application of an integrated approach to formation of a digital strategy for the virtual market development.

For citation

Azaryan E.M., Melent'eva O.V. (2024) An integrated approach to the formation of a digital strategy for the development of a virtual market. *Ekonomika: vchera, segodnya, zavtra* [Economics: Yesterday, Today and Tomorrow], 14 (9A), pp. 386-395.

Keywords

Virtual market, an integrated approach to the digital strategy formation, digital technologies, digital solutions, digital maturity, digital economy, marketing strategy, digital strategy.

Introduction

The extensive adoption of innovative digital technologies, information technologies and artificial intelligence technologies have changed the approaches to the information space strategic development, the procedure for the information infrastructure formation, the approaches to development of spatial processes and time concepts for growth of the goods and services market.

The main laws of the virtual market development are such processes as business globalization, electronic trading, digitalization of the economy, free economy, which clearly indicate objectivity and relevance of a scientific research on the foundations of development of the virtual market, digital strategy, integrated approach to development of the economic categories that are important for development of the digital economy as a whole.

The virtual market is a large-scale and versatile economic definition with many distinctive characteristics. The virtual market unites many interested parties and is a highly profitable sector in the market for goods and services, providing an opportunity to implement, try and test innovative technologies for promoting products, goods and services in the Internet promotion system.

An important area of the scientific research oriented on study of an integrated approach to formation of the digital strategy for the virtual market development is topical at the stage of the economy digital transformation and formation of a strategy for the digital marketing development.

Materials and research methods. The following general scientific methods have been used during the research to solve the tasks at hand: terminological, structural and logical analysis; system-based historical approach; analog approach; synthesis, generalization, grouping methods; and the tabular procedure.

The results and their discussion

The developing virtual economy, unlike the traditional one, is characterized by the qualitatively new productive apparatus based on the computer tools, information and telecommunication technologies [Usova, Loginov, 2022].

Innovative technologies are of great importance in development of the virtual market and play a qualitatively essential role in improving the efficiency and quality of sale of products, goods and services in the digital space.

Such services as credit extension and guarantee support, expert software to select the required option, reviews, analytical articles and news of the car market, are offered through the virtual market [Gasanov, Gasanov, Zubarev, 2024]. The qualitative and quantitative change of the innovative macroeconomic style of development has improved the virtual market behaviour.

According to V. Djuric, a digital strategy is a long-term outlook for a company development and implementation of a plan for achieving strategic goals considering use of digital solutions in the area of implementation of R&D technological digital products. A digital strategy is developed independently by a company and can be developed by the specialists who have the competencies important for the strategy development and predict the future transition of the main activity or

individual areas of activity to the digital space or digital environment [Djuric, 2022].

Under the effect of the innovative digital solutions, a single global economic network and a global virtual market space are being formed, which is proven by the following fact, i.e. to what extent the country's economy uses digital technologies to improve its competitiveness and well-being [Garnov, Bykova, 2020]. It is important during fulfillment of the tasks involving development of new digital technologies to pay attention to the rising risks and threats that form as a result of growth of business entities that are becoming interconnected by a variety of social and economic relations, participation in functioning of the digital platforms and a wide range of interaction with consumers [Gorodnova, 2021].

Let us systematize the main prerequisites for development and implementation of a digital strategy by a company from the point of view of the author's vision. They are the driver in planning digital transformation processes and developing a digital strategy. We shall also simultaneously present the main trends in development of the virtual market based on the proposals for progress of companies in the digital space:

- change in consumer behavior, caused by a lower consumer traffic and a poorer positioning due to transition of the consumer flow to the online segment in the digital environment. Construction of an official website, implementation of innovative technologies for promotion in the Internet environment, formation of an online store, development of new channels for promoting goods in the digital space, consolidation of new competitive positions considering a higher digital maturity level;
- a lower level of brand recognition at certain stages of digital transformation, the fall of positions in the rating of branded companies. The digital strategy should be aimed at higher competitiveness level through implementation of digital solutions for elevation of the brand recognition level and improvement of the company's image, and transition to the digital platforms for brand promotion is the basis of the digital strategy for the virtual market development;
- when implementing digital technologies, a downward trend in sales may be observed in a certain period of time when buyers have not yet fully understood digital innovations and promotion channels in the digital space have not yet been fully established. It is important at this stage to systematically assess the level of digital maturity and digital readiness of companies, as well as the seasonality of companies' work and, accordingly, the phased introduction and implementation of a digital strategy at specific stages in organizing the activities of companies;
- attrition of offline buyers and transition to the online space entail production and technical changes that affect the trends of interaction with buyers to increase the buyers' involvement in the Internet space. For example, consumers on Internet services such as Yandex.Market, Avito and other services quickly master the proposed interfaces in the best way possible and quickly enough adapt to the digital environment, making maximum use of the proposed digital solutions regarding acquisition and purchase of the required products, goods and services.

The virtual market represents a digital environment for interaction of all interested partners and promotion of products, goods and services in the digital space, which is a large-scale platform for implementation and application of digital technologies, domestic software and computer technologies for arrangement and implementation of the operations involving sale of products, goods and services. Let us determine a modern classification array of the types of virtual markets, which will allow more flexible adaptation in formation of a digital strategy for the virtual market development and tailoring of each virtual market type in accordance with the virtual market performance indicators (Table 1).

Classification criterion Types of virtual markets By functioning scale International, state, national, regional, federal, local By range of products, goods and services Universal, specialized, individual By particular and individual characteristics Electronic platforms, digital sites, digital platforms for sale of of products, goods and services products, goods, services, securities, labour, currency, patents and other tangible and intangible assets By the type and number of participants in Business-to-Business, B2B. the virtual market Business-to-Consumer, B2C. Consumer-to-Consumer, C2C. Consumer-to-Business, C2B. Business-to-Government, B2G By level of development and demand Trading platforms for dealers, for brokers; trading platforms for distance learning; underdeveloped and unclaimed ones during the research period. Companies with a high degree of digitalization, a medium By the digitalization degree degree of digitalization, a low degree of digitalization

Table 1 – Modern classification array of the types of virtual markets

The virtual market is the main attribute of the economy in the information society, which is characterized by an abundance of goods and the superiority of the service sector over commodity production [Virtual Market, www...].

The main results of the scientific research are the presented basic elements of a virtual market formation, while these economic categories have characteristics based on the author's vision of their use and the peculiarities of their application in classical enterprises, agencies and institutions of various forms of ownership and the modern virtual market, which will definitely form a new approach to understanding the essence of these categories and the possibility of their further use (Table 2).

Table 2 – The basic elements of a virtual market formation

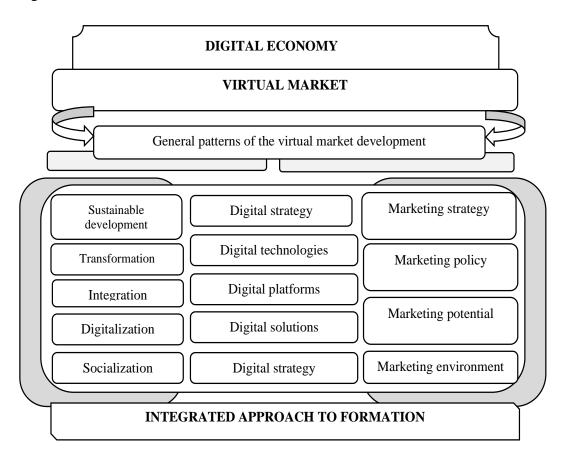
Elements	Enterprise, agency, institution	Virtual market
Digital		Large-scale introduction of software and digital
maturity	technologies at individual stages in	technologies for an effective implementation of the
-	organization of activities and potentiality	full cycle of a company's functioning in the virtual
	of their effective use	market and improvement of competitive positions
Digital culture	Digital technology development and	The brand and image of a virtual company
and literacy		demonstrate a high level of the digital culture of all
	digital competencies that indicate the	interconnected persons and partners
	available digital literacy and digital	
	culture skills	
Digital		Digital competencies of the personnel for work in
competencies	* *	the virtual market should be at a high professional
	the field of digital technologies	level of IT specialists' and marketing experts'
		foreign and domestic experience and knowledge in
		promoting products, goods and services on the
		Internet
Digital space	*	The digital space is a multi-aspect space that, in
	•	order to fulfill the main tasks of the virtual market,
	and promotion of products, goods and	
		strategically important goals, integration processes
		and ensure the most effective conditions for the
	institutions	virtual market functioning

^{*}compiled by the author based on citation.

Elements	Enterprise, agency, institution	Virtual market
Digital	This is a specific information and digital	It is an integrated communications environment
environment	resource, within the effective range of	within which digital devices exchange and manage
	which the communication policy and	the content and actions.
	digital technologies for promoting goods	
	and services on the market are	
	implemented.	
Digital	Relationship between software and	High level of digital presence and digital support for
readiness	technological capabilities for	the entire virtual market functioning process
	introduction of the digital technologies	
	for implementation of the digital	
	solutions	

^{*}compiled by the author based on citation

The scientific research results provided means for uncovering the author's vision of the general patterns of development and further transformation of the modern virtual market, which are made visible in Fig. 1.



^{*}compiled by the author based on citation

Figure 1 – General patterns for development and further transformation of the modern virtual market

The virtual market is developing on the basis of the classical patterns and innovative prerequisites for development of the digital space and modern digital companies [The Importance of Virtual Value Chains in Reaching New Market Potentials, www...].

Digital transformation in the digital economy has a significant impact on building and implementing a digital strategy for development of the virtual market that combines all possibilities for introduction of IT technologies, artificial intelligence, machine learning, robotics and large databases. The virtual market, at its maximum operating rates, is predicted to allow connecting about 24 billion devices to the Industrial Internet of Things (IIoT) by 2025, and 70% of manufacturers will regularly use digital twins. The global metaverse market may reach USD 980.5 billion by 2030 [Peter, Phillips, 2024].

The virtual market is developed under the influence of the information technologies, which form an innovative information infrastructure of technical and telecommunication means, tools for collecting and processing, transmitting, storing and presenting information, which in turn creates an information space for implementation of the main virtual market functions.

The innovative information infrastructure for the virtual market functioning provides channels for promotion of products, goods and services with the required information help and support, ensures information satisfaction of needs of all participants interacting in the virtual market as a result of using the information resources. Thus, the success of the company's promotion policy in the virtual market in the new realistic sustainable development conditions consists in instituting and developing a marketing strategy, the basis of which is the effective virtual communication implementation and management [Luzhnova, Belashov, 2021].

These information resources include digital platforms, which, on the one hand, are constructed and developed thanks to the technical and engineering options of the society-built information infrastructure, and on the other hand, being a digital format of social and economic interaction, form the information and communication level of the information infrastructure itself [Yakovleva, Popova, 2023].

The growing role of science, information and computer technologies in management processes is reflected primarily in organization and technology of development, adoption and implementation of management decisions. The key element of a modern business entity is working with data, using knowledge and personal competencies with the use of the information and communication systems in the process of development, application and implementation of a management decision [Khairullina, 2021].

It is the presented symbiosis of the information technologies, innovative resources and digital infrastructure that paves the way and establishes facilities for the virtual market functioning, distribution and redistribution of the information database, development and implementation of the systems and services to ensure all processes in the virtual market, provision of an information and communication basis for the business environment social interaction and functioning in the virtual market [What is the Digital Economy? Trends, Competencies, Measurement Ch-80, 2019].

Such technological transformations allow us to conclude that the virtual market, in its diversity of technical capabilities, predetermines development of the areas of activity that ensure the virtual market functioning and the digital strategy delivering.

Conclusion

A digital strategy formation for the virtual market development based on an integrated approach is well-reasoned and timely, given the fact that the virtual market has every chance of taking a flagship place in the electronic commerce growth.

The author's vision of the general patterns of the modern virtual market development and further

transformation includes the use of an integrated approach to the virtual market formation based on such modern trends in development of the economic categories as: sustainable development, transformation, integration, digitalization, socialization, which cover the following virtual market segments: digital strategy, digital technologies, digital platforms, digital solutions and digital strategy.

Thus, the presented visualization will make it possible to organize the general patterns, to centrally designate their influence on the virtual market development and to determine the subsequent prospects for the virtual market development, which should be tested and implemented in practice. We believe that for various scenarios of the virtual market development the presented patterns form the general trends in the virtual market development, a digital strategy formation and implementation, and the assessment of the manifestation results for these patterns should be reflected in the future scientific publications.

The further scientific research promising areas include the study of the theoretical and conceptual basis for the digital business environment and marketing potential development in the virtual market, which are important to form considering the trends in development of the virtual market in the new territories of the Russian Federation: the Donetsk People's Republic, the Lugansk People's Republic, the Kherson and Zaporozhye regions. The trends in the virtual market development in the new territories exactly reflect the specifics of using an integrated approach to the digital strategy formation for the virtual market development.

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Интегрированный подход к формированию цифровой стратегии развития виртуального рынка

Азарян Елена Михайловна

Доктор экономических наук, Проректор по научной деятельности, Донецкий национальный университет экономики и торговли им. Михаила Туган-Барановского, 283050, Российская Федерация, Донецк, ул. Щорса, 31; e-mail: azaryan.yelenamikhaylovna@bk.ru

Мелентьева Оксана Владимировна

Доктор экономических наук, Профессор кафедры маркетинга и торгового дела, Донецкий национальный университет экономики и торговли им. Михаила Туган-Барановского, 283050, Российская Федерация, Донецк, ул. Щорса, 31; e-mail: melentjeva.oksanai@yandex.ru

Аннотация

В статье определено, что цифровая стратегия разрабатывается самостоятельно компанией и может разрабатываться специалистами, которые имеют важные для разработки стратегии компетенции, которые в перспективе прогнозируют переход основной деятельности или отдельных направлений деятельности в цифровое пространство или цифровую среду. Систематизированы основные предпосылки разработки и внедрения цифровой стратегии компанией, которые являются драйвером в планировании цифровых трансформационных процессов и разработки цифровой стратегии. Также синхронно представлены основные направления развития виртуального рынка на основе предложений относительно развития компаний в цифровом пространстве. Обозначено, что виртуальный рынок представляет собой цифровую среду для взаимодействия всех заинтересованных партнеров и в продвижении продукции, товаров и услуг в цифровом пространстве, который является масштабной площадкой для реализации и применения цифровых технологий, отечественного программного обеспечения и компьютерных технологий для организации и осуществления операций по реализации продукции, товаров и услуг. Также определен современный классификационный ряд видов виртуальных рынков. Определены основные

элементы формирования виртуального рынка, которые систематизированы как экономические категории, которым предлагается дать характеристики их использования и применения на классических предприятиях, организациях и учреждениях различных форм собственности и виртуальном рынке, что однозначно будет формировать новый подход в понимании сущности данных категорий и возможности их дальнейшего использования. Проведена оценка современного состояния функционирования виртуального рынка и представлены предложения относительно применения интегрированного подхода к формированию цифровой стратегии развития виртуального рынка.

Для цитирования в научных исследованиях

Азарян Е.М., Мелентьева О.В. An integrated approach to the formation of a digital strategy for the development of a virtual market // Экономика: вчера, сегодня, завтра. 2024. Том 14. № 9А. С. 386-395.

Ключевые слова

Виртуальный рынок, интегрированный подход к формированию цифровой стратегии, цифровые технологии, цифровые решения, цифровая зрелость, цифровая экономика, стратегия маркетинга, цифровая стратегия.

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