E-COMMERCE AS A MEANS OF DIGITALIZATION OF BUSINESS

Abstract. The article examines how digital economy technologies change the living conditions and economic behavior of people. Attention is focused on business behavior and new opportunities in the business environment. In particular, they examine changes in business strategy, competition, new marketing and customer relations opportunities, the emergence of new sources of profit and competitiveness factors. Organizational forms and new methods of doing business in the context of digital transformation and digital economy are analyzed.

At the same time, data on the development of e-commerce as a factor in the development of digital entrepreneurship in the Republic of Kazakhstan are considered and analyzed.

Keywords: digitalization, e-commerce, digital economy, online store, digital business

Introduction

Outside the time, the development of the digital economy is taking place all over the world and in all spheres of society due to innovative growth and transformation of processes because of the emergence of new technologies. However, the digital economy is developing unevenly in different countries and regions, creating both new opportunities and barriers that need to be overcome to successfully conduct business activities on digital platforms. Data is transformed in a modern environment into a new production factor that allows you to create value for the consumer and build business activity at a different technological level. In this regard, the digital economy and the problem of its construction is becoming one of the most important topics studied by various foreign and Russian scientists. It is important to note that over the past decades, not only have not received the development of information and communication technologies traditional for Western countries (from the English information and communication technologies (ICT)), but no conditions have been created for the transition to a digital economy. The dynamics towards the digitalization of business and non-commercial areas of activity of organizations is observed at an extremely low level. At the same time, the digitalization of all spheres of the economy in developed countries has been going on for the past thirty years. The need to identify the main challenges on the way to the digital transformation of the country's economy, as well as to identify business models based on digital data, determines the high relevance of the study conducted by the author, especially in the current conditions of development of Russian enterprises.

Literature review

The established definition of the term «digital economy» (from the English digital economy) does not exist, and different scientists approach the interpretation of this concept from different positions. In particular, the authors of studies [1] define the digital economy as a set of technologies that transform the system of socio-economic relations. Other

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scientists [2,3] identify the digital economy as a system of high-tech elements that allow stimulating the innovative growth of the economy.

For example, D. Kozye in his definition provides the main support for business operations aimed at the main goal of realizing entrepreneurial activity - earning. This opinion is also shared by Evod Ilayes [4]. L.S. In Klimchen's version, e-commerce is defined as a component of e-business, and e-commerce is described as a separate case of e-commerce [5].

These authors consider e-commerce and e-commerce to be synonymous or separate cases of each other. O.A. The definition proposed by Kobelev is consistent with this, he considers electronic trade as the main component of electronic commerce and defines it as «business activities for the implementation of commercial operations, exchange of data using electronic means» [6]. E-commerce as an Internet trade is also supported by other Western economists, for example, Eymore D. also studied [7]. Also, I. Goldovsky, who explained that «electronic commerce means the sale of goods with minimum organization of demand for goods via the Internet» [8].

S.V. Pirogov explains electronic commerce as «technologies of conducting commercial operations and managing production processes using electronic means of data exchange» [9]. By introducing the concept of «management of production processes», the author explains the importance of a systematic approach to the problems of managing trade and investment flows in accordance with financial risks, and electronic commerce makes it possible to make such management more effective. The advantage of this approach is that MRP, MRP II, ERP etc. is a reminder of the management of production processes that opens up opportunities to enter the subject area of systems.

Some specialists, describing the established terms, in the legal sense, it includes a number of contracts in electronic form on international and domestic markets, for example, goods delivery, purchase and sale, banking contracts, insurance, passenger transportation or sea, air, railway transport. It is assumed that the transport of goods also explains the contracts related to any business and industrial cooperation.

Materials and methods

Research is based on the use of the following scientific methods: generalization from the particular to the general, from the general to the economic evaluation (analogy). The choice of research methods is focused on achieving the set goal, namely the risks and opportunities of the domestic digitalization market. Research methods help not only to collect facts, but also to check them, systematize and identify non-random dependencies and determine the causes and possible consequences.

Results and discussion

In the context of a high degree of uncertainty in entrepreneurial activity, there is a sharp increase in interest in the problems of ensuring the sustainable development of enterprises, their ability to carry out diagnostics quickly and effectively and transform work, adequately responding to changes in the external and internal environment in the era of the digital economy.

The introduction of digital technologies in all areas is the most important condition for the sustainable development of the country. The digitalization of the economy is necessary to create convenient platforms for comfortable interaction between the state and enterprises, to reduce the administrative burden on business, to increase the efficiency and transparency of the economy and the entire public administration system.

Reducing the administrative burden on business and improving public administration using new technologies are already the main areas of work in modern realities.

The digital economy is an activity in which an important production factor is data presented in digital form, the processing of large amounts of data and the use of final estimates, which, compared with traditional methods of activity, can significantly increase the effectiveness of various types of activities, technologies, equipment, and machines used, storage, pre-sales preparation and sales, logistics and delivery of goods and services.

Economic, social, technological, legal, etc., for the development of e-commerce in Kazakhstan. the initial foundation of conditions has been formed.

Further improvement of e-commerce management is possible only when the state takes into account the development of the entire external and internal factors of the country and implements quality management actions and measures.

The priorities of the e-commerce market for the economy of Kazakhstan are to reduce the share of the shadow economy, develop cross-border trade, increase the welfare of the country's population, COC, etc. is concluded with development.

In developed and developing countries, e-commerce is developing as much as possible, and its positive influence affects not only the business sphere, but also the quality of life of the people of the whole country. In particular, citizens have access to a greater number of goods at lower prices thanks to e-commerce.
For example, it can be said due to attraction to international trade. From the point of view of impact on business, it is worth noting that the growing popularity of e-commerce leads to an increase in the number of people who want to open their own business in this sphere.

According to the results of 2017, 110 new subjects of electronic trade were registered. 1,658 online stores are operating in the Kazakhstan market, and the number of customers has increased by 5% during this period.

At the beginning of 2022, 226 new subjects of electronic trade were registered, about 1,868 online stores are operating, the number of buyers is 1.5 million. multiplied by a person, Figure 1.

\[ y=ax+b, \]
\[ x \text{ — years.} \]

The linear trend equation has the following form:

The linear trend data in Figure 1 is used to illustrate time series forecasting that is increasing at a constant rate.

The approximation index R^2 is high, equal to 1, which proves that the number of e-commerce entities is constantly growing, and reliability is at a high level.

**Figure 1.** Quantitative dynamics of e-commerce entities in the Kazakhstan e-commerce market, 2017-2022. Source: Compiled by the authors from data [10].

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![Figure 1. Quantitative dynamics of e-commerce entities in the Kazakhstan e-commerce market, 2017-2022. Source: Compiled by the authors from data [10].](image-url)
The linear trend equation has the following form:

\[ y = ax + b, \]

here:

- \( y \) is the number of e-commerce entities,
- \( x \) – years.

The linear trend in Figure 2 graphically displays the near forecast trends of the data. The approximation index \( R^2 \) is high, equal to 1, which proves that the number of e-commerce entities is constantly growing, and reliability is at a high level.

According to the latest data, 71,6 thousand employees are employed in the industry.

For example, according to experts, the volume of electronic trade in 2014 was 129 billion tenge, and in 2022 its volume will be 210 billion tenge or increased by 112%.

In the next period, the growth doubled and the market increased by 3.2 times. The market size in Kazakhstan in the period of 2014-2022 shows persistent dynamics of growth, Figure 2.

\[ y = 46.37x + 76.85 \]

\( R^2 = 0.9974 \)

Figure 2. Dynamics of the volume of the Kazakhstan e-commerce market in 2014-2022, bln. Tenge

Source: Compiled by the author based on data [10].

The linear trend shown in the figure indicates positive market dynamics. The detection methodology is similar to Figure 2.

The main players in the market are:

- online stores;
- Information and advertising sites on the Internet;
- Electronic trading platforms.

In this period of time, the main turnover of trade operations is carried out by:

- through various online stores – 98.5 bln. in the amount of tenge or 62% of all turnover;
- 3.9 billion through various information and advertising sites on the Internet, in the amount of tenge or 2%;
- e-commerce sites through – 57.2 bln. all the same or 36%, Figure 3.

Figure 3. The structure of sales in 2022 by their places of implementation, %

Source: Compiled according to the author's data [11].
When it comes to the maximum popularity of online stores, internet marketing, which allows attracting a large number of target customers, has received the most sufficient development in all aspects. At the same time, the sales structure itself has been ambiguous in recent years by the main trade sector, Figure 4.

![Figure 4. Electronic sales structure](source: Compiled by the author according to data [11].)

At the beginning of 2022, e-commerce activity will cost 71.2 bln. tenge, goods (retail and wholesale) 88.4 bln. tenge, Figure 5.

![Figure 5. Sales structure by types in 2022, %](source: Compiled by the author according to data [11].)

According to the National Bureau of Statistics, the most popular product categories among buyers are clothing and electronics. Today, these two segments account for more than half of all online purchases, Figure 6.

![Figure 6. Categories of goods received in 2022 data on, %](source: Compiled by the author according to data [12].)
Among the services implemented through the Internet, the following are implemented as the greatest demand of customers:

- sale of tickets for each type of transport – 29.3 billion tenge;
- payment of reservation and accommodation service reached 52 billion tenge;
- distribution of tickets for recreation, culture, entertainment, and sports – 1.9 billion;
- advertising services – 1.8 bln. tenge;
- intermediary service – 1.7 bln. tenge.

Not only the size of the market, but also the volume of delivered parcels is growing. For example, according to the postal operator, in 2021, 15.3 mln. parcels were sent, and in 2022 this indicator increased by 43% and its level is 21.9 mln. reached the parcel [13].

Figure 7. 2022 according to the structure of purchase of services, %

According to the data obtained from the research conducted by the National Bureau of Statistics, people aged 6-74 who use the Internet make up 50.6% of the total population, and half of the users (25.3%) make purchases through Internet stores.

Figure 8. Cost of goods and services ordered via the Internet

Online stores is more than 25,000 tenge (48.1% of the total number of online purchases) and its value is from 5,000 to 25,000 tenge (40.8%). This shows that Kazakhstan users make large purchases over the Internet and offers at relatively lower prices than retail outlets, and this is an additional incentive for the development of Internet commerce in the Republic of Kazakhstan.

An important element of the development of the e-commerce system is electronic payments, with mobile devices, etc. is to ensure the most convenient and accessible use of various types of electronic systems implemented during payment.

As shown by the analysis of the main directions of e-commerce management in Kazakhstan, e-commerce dynamics in Kazakhstan are characterized by positive growth trends. Currently, the market structure is relatively balanced. Only a small number of enterprises, mainly concentrated in large cities, are registered on the electronic trade market. The demand of enterprises to purchase goods online is increasing day by day, according to consumers, this is due to the large selection of goods at lower prices compared to offline trade, as well as the availability of opportunities to obtain goods that are unavailable in certain regions of the country.

The concentration of sales is fragmented by regions, because large regional centers are preferred for sellers, where there is a large number of customers, logistics and financial infrastructures, etc. well developed.
The problem of optimizing the delivery of goods in electronic commerce clearly requires a review of the general basis of the organization of the activities of each of the business entities that create the corresponding electronic store or electronic commerce network.

In order to ensure quality delivery of goods to such enterprises, it is objective to revise the organizational structure of e-commerce enterprises with the creation of a special service (in organized divisions, departments) of logistics or small enterprises - individual employees responsible for organizing the delivery of goods and other aspects of logistics activities. Further, it is recommended to improve the overall operating system as a set of logistics operations performed by separate departments of the enterprise within the framework of a specific logistics chain for an enterprise (electronic store), which should first of all focus on the issues of planning the main economic flows:
- purchases;
- technology of the electronic store and its composition the process;
- sale and delivery of goods to buyers [15].

In this system, the problems of organizing the sale and delivery of goods to buyers, which must be carried out taking into account the greatest possible satisfaction of the demand for goods and services for the lowest possible costs of the electronic store, take a decisive place.

In this regard, the organizer of the electronic store should clearly define the mission, goals, and principles of the quality of customer service, which is a priority and determining factor for this enterprise. And on this basis - should form a system of customer service standards, in particular, customer service procedure, receiving and processing of their orders, fulfillment, including delivery of goods to customers.

Thus, the formation of the electronic trade system is based on the use of modern types of computer and software, accelerated development of information technologies, coverage of a concentrated contingent of customers, creation of electronic trade infrastructures for the delivery of goods and payments. The economic content and purpose of electronic trade is implemented during the sale of goods by the electronic store, therefore, the operations of the sale of goods should be clearly regulated with the aim of protecting the economic interests of both consumers and business entities - organizers of electronic trade.

The nature and features of the organization of business processes of electronic trade largely depend on the product profile of the enterprise and its specialization in the implementation of goods of a virtual or tangible nature.

There was a great opportunity for the development of international trade in the process of globalization. However, the COVID-19 pandemic has led to an increase in online shopping. The rise of e-commerce sales through B2C (business-to-consumer) channels can see the online sector of medicine, household goods and food particularly hot. Currently, there are more than two thousand online stores in the country, including only 601 online stores registered for income tax benefits.

Today, there is no special legal document in the Republic of Kazakhstan that fully regulates e-commerce, that is, it helps to collect, systematize and define the main elements of e-commerce, and allows to harmonize the legislation of the Republic of Kazakhstan with the legislation of the EU. There are only a number of separate standards to regulate specific issues. If we distinguish among them the ones suitable for the purpose [16].

DSTU is guided by CWA 14365 (CWA 14365:2004, IDT) on the use of electronic signatures. CWA - The purpose of this series is summarized in providing guidelines for the use of electronic signatures.

Therefore, the development of Internet trade in the Republic of Kazakhstan is extremely important, because it is an effective tool that allows many Kazakhstani companies to enter the world market. In conclusion, e-commerce will stimulate the further development of both Internet technologies and all financial infrastructures in the Republic of Kazakhstan. For this purpose, it is necessary to create appropriate regulatory frameworks, guarantee documents and reference-information set.

It is necessary to take measures to improve the legislation that provides for the protection of consumer rights and ways to promote electronic commerce.

It is worth noting that Kazakhstan today does not have a targeted draft law that contains all the provisions related to the protection of consumer rights in one document. This document should take into account all working moments related to the protection of the online buyer, from his registration on one or another site or online store to the moment of receiving the goods.

Conclusion

Thus, since the state is a full participant of the electronic commerce market, it covers all aspects of electronic commerce and conducts electronic payments, goods transactions, entering into contracts, etc. It will be in his interest to create effective laws that regulate. Regulation of e-commerce issues in the legal field will be the impetus for the intensive stage of further development of both domestic e-commerce and international e-commerce.

REFERENCES 1:

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ИССЛЕДОВАНИЯ

ЭЛЕКТРОННАЯ КОММЕРЦИЯ КАК СРЕДСТВО ЦИФРОВИЗАЦИИ БИЗНЕСА

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Аннотация. В статье рассматривается, как технологии цифровой экономики меняют условия жизни и экономическое поведение людей. Внимание сосредоточено на деловом поведении и новых возможностях в бизнес-среде. В частности, они изучают изменения в бизнес-стратегии, конкуренцию, новые возможности маркетинга и взаимоотношений с клиентами, появление новых источников прибыли и факторы конкурентоспособности. Анализируются организационные формы и новые методы ведения бизнеса в контексте цифровой трансформации и цифровой экономики.

В то же время изучаются ключевые элементы и особенности цифровой экономики, основанной на развитии информационно-коммуникационных технологий, Интернета и других технологий. Представляется, что в контексте эволюционной цифровизации существует необходимость в структурной трансформации бизнес-процессов и поиске новых моделей ведения бизнеса с использованием цифровых технологий. Неравномерное распространение цифрового бизнеса в разных странах определяется уровнем готовности общества и экономики к переходу на новый вектор развития. В отечественной бизнес-среде существуют определенные барьеры, которые препятствуют росту цифровизации. В статье рассматриваются основные проблемы и пути развития бизнеса в цифровой экономике.

В то же время рассматриваются и анализируются данные о развитии электронной коммерции как фактора развития цифрового предпринимательства в Республике Казахстан.

Ключевые слова: цифровизация, электронная коммерция, цифровая экономика, интернет-магазин, цифровой бизнес.