

TRENDS IN THE DEVELOPMENT OF LOGISTICS AND DISTRIBUTION INFRASTRUCTURE OF E-COMMERCE

*Kuzmin A.A., Postgraduate Student
Kharkiv National Automobile and Highway University, Ukraine*

Modern society is increasingly aware of the impact of Internet technologies on various sectors of life [1-6]. The field of electronic commerce (e-commerce), where goods are sold online, has become especially popular. Nowadays, more and more people are asking about the need for research in this area, as it helps retailers understand the advantages and disadvantages of online trading, as well as study the status and development of the market and consumer behavior. Studying the e-commerce organization has another important purpose: it reveals old problems associated with traditional retail, such as logistics, and creates new challenges for retailers. Many authors have conducted a statistical analysis of the e-commerce market in Ukraine [1-2]. Research also pays considerable attention to the regulatory aspects of regulating e-commerce [1-2, 5-6]. However, the introduction of quarantine restrictions in 2020 related to the COVID-19 pandemic has opened up new prospects for online trading. The closure of offline stores has significantly changed the situation in the market for goods and services, attracting more online consumers and increasing online sales.

The Internet economy began to develop with the advent of the World Wide Web in the mid-1990s. Currently, the Internet has become an integral service that brings together people from all over the world for various communication purposes. The terms “e-commerce”, “e-business”, “internet economy” and “digital economy” are recent ones. All these concepts are based on the concept of “Internet economy”. The Internet economy relies on digital technologies and provides connections between economic entities and processes through electronic communication means. E-commerce is not limited to just selling goods and services online for profit. It also includes demand creation, post-transaction customer service, improving communication between business partners and providing transport and logistics services.

An important aspect is the legislative regulation of e-commerce in Ukraine. This issue is regulated by regulations at different levels. The introduction of the Civil Code of Ukraine, the Law of Ukraine “On Electronic Documents and Electronic Document Management”, the Law of Ukraine “On Electronic Trust Services” and amendments to the Law of Ukraine “On Protection of Consumer Rights” consolidated the foundations of the Internet -trade and ensured the protection of consumer interests. According to Article 3 of the Law of Ukraine “On Electronic Commerce”, electronic commerce is defined as economic activity carried out through electronic transactions using information and telecommunication systems. In addition, according to the Law of Ukraine “On the Protection of Consumer Rights,” e-commerce includes contracts concluded by the seller with the consumer through telecommunications and information networks.

E-commerce continues to experience year-on-year growth in the international market. According to Statistical Portal data for the period from 2014 to 2021, the volume of global retail e-commerce has grown by more than 2.6 times. The annual increase ranges from 15.9% in 2015 to 29.2% in 2017. Meanwhile, annual growth in global retail trade has remained stable at around 6% since 2016. The share of e-commerce doubled from 2014 to 2019 and is 11.4% in 2021 [7].

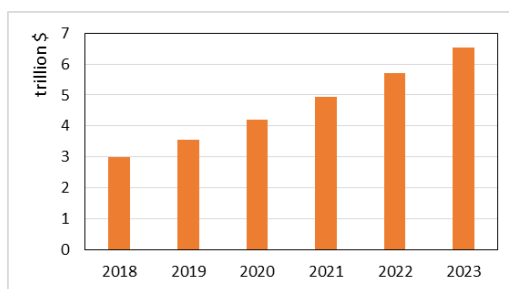


Figure 1 – The dynamics of changes in the volume of e-commerce in the world since 2018 with a forecast for 2023 (Source: based on The Statistical Portal [7])

Further growth in e-commerce volumes is predicted both globally and in Ukraine, but the rate of annual growth is expected to slow down. Nowadays, leading sellers of goods are increasingly divided into offline and online sellers, adhering to the principle of customer focus. The consumer, in turn, chooses a store, taking into account such criteria as product availability, convenient and secure payment, fast delivery and returns, as well as quality service. Reviews also play an important role when choosing a product and verifying the integrity of the seller, whether online or offline.

It should be noted that the development of e-commerce is based on attracting an increasing number of users to the Internet. Therefore, it is not surprising that the share of turnover from e-commerce in countries' GDP and the share of Internet users correlate with each other. The leading countries of Western Europe are already close to 100% Internet penetration, while in Ukraine this figure is about 63%. Note that the share of e-commerce in the Ukrainian retail market does not yet exceed 4%, which explains this gradation. However, the marketplace segment is the area with the fastest growth in online trading, surpassing the growth rate of classic online stores. This is due to the fact that small entrepreneurs often find it difficult to advertise their websites and organize prompt delivery of goods. Therefore, it is more profitable for them to work on sites that take on part of the obligations to promote the product. This approach lowers the barrier to entry into the retail market and minimizes the need for large investments. Experts from the Ukrainian IT company Evo estimate that the volume of the Ukrainian e-commerce segment in 2020 amounted to UAH 65 billion, an increase of 30% over the year. This was due to quarantine restrictions.

Competition between marketplaces, social networks and search engines is growing steadily. In the US, 55% of buyers immediately turn to platforms such as Amazon, Etsy or eBay, bypassing Google. In Ukraine, the largest number of potential buyers is concentrated on popular Internet platforms, such as Prom, where the share of direct traffic is 19%, Rozetka - 30%, OLX - 44%, AliExpress - 50%.

After the introduction of quarantine restrictions and in the context of the fight against the COVID-19 pandemic, new opportunities for the development of online commerce have emerged. Thus, thanks to the cooperation of the Ministry of Health of Ukraine and the online retailer Rozetka, algorithms for the delivery of food and household goods with minimal contact were developed, with preference given to online orders. We see that the state also uses the services of online retailers to meet the needs of citizens during crisis situations.

In addition, it is necessary to take the experience of conducting online commerce from Western European countries and implement it in Ukraine. Thus, the main emphasis should be on developing the main trends in global online commerce, including customer loyalty and personalization of transactions, mobile commerce, community outreach, cooperation with remote regions of the country and efficient logistics planned.

We agree with the statement that the state should promote the development of e-commerce not only in times of crisis, but also constantly. As noted earlier, the level of e-commerce in retail trade in Ukraine is significantly lower than in the rest of the world. This is due to the imperfection of the regulatory framework, the lack of sufficient Internet coverage, low literacy in the field of online shopping and, in general, the distrust of Ukrainian consumers in online trading.

Despite the fact that in 2020, 71% of Ukrainians (22.96 million people) had access to the Internet, and only 31% of them made online purchases at least once, it is worth noting that the e-commerce format in Ukraine is rapidly developing, and this has many advantages. The main ones are:

- quick and accessible information about the product, its price and characteristics;
- efficiency and convenience of trading operations (selection, registration, payment, feedback);
- reduced costs for renting retail space, labor costs, marketing expenses, service and customer support;
- long-term communication with customers through the creation of electronic databases (email addresses, mobile phones, profiles on social networks);

- development of Internet marketing using a variety of tools: official websites, online stores, marketplaces, contextual and media advertising, e-CRM systems, blogging, direct marketing;
- using modern analytical tools (for example, Google Analytics) for market research and assessing the effectiveness of marketing activities;
- increasing openness to consumers and increasing loyalty.

Of course, e-commerce has its advantages and disadvantages. The disadvantages of e-commerce development in Ukraine include:

- insufficient security of consumer data and unreliable payment systems;
- low quality of communication and service;
- instability of the national currency;
- imperfection of the regulatory framework;
- lack of a sufficiently developed system for targeted delivery of goods;
- high prices for delivery of goods.

One of the serious problems associated with e-commerce in Ukraine is the unsatisfactory quality of transport services. One of the key problems of online stores is the high cost of delivering goods, since in the Ukrainian market delivery services are controlled by several monopolists (Ukrposhta and Nova Poshta), which leads to a steady increase in delivery costs. This, in turn, encourages customers who prefer to save money on delivery to choose offline stores.

Despite the shortcomings and threats, the e-commerce market in Ukraine has every chance of development. Existing trends that have developed in the USA, Europe, China and other countries, such as strengthening customer focus in trade, ensuring security and accessibility, will be relevant in Ukraine. The main problems in the development of e-commerce in Ukraine remain the need to improve logistics related to the distribution of fulfillment services. Fulfillment companies will take full responsibility for all stages of order processing and delivery, including receiving payment, storing goods, picking, packaging, transportation and processing returns. To attract customers and adapt to new challenges and needs, it is important to use digital marketing and reconsider the existing strategies of transport businesses.

Thus, e-commerce in Ukraine has enormous development potential, including the adoption of successful practices from well-known Western countries and the improvement of internal processes. It can become a reliable and efficient means of commercial transactions, meeting modern market requirements and customer needs.

References:

1. Гліненко Л.К., Дайновський Ю.А. Стан і перспективи розвитку електронної торгівлі України. *Маркетинг і менеджмент інновацій*. 2018. №1. С. 87-94.
2. Зосімов В., Берко О. Проблеми та перспективи розвитку електронної торгівлі в Україні. *Геометричне моделювання та інформаційні технології*. 2018. №1(5). URL: <http://mdu.edu.ua/wp-content/uploads/gmit5-51.pdf> (дата звернення: 20.10.2023).
3. Денисенко М. П., Шморгун Л. Г., Бондаренко О. С. Організація та проектування логістичних систем. *Київ: Видавництво Міленіум*, 2016. 388 с.
4. Нефьодов В. М., Калініченко О. П. Сучасний стан і актуальні проблеми доставки товарів народного споживання автомобільним транспортом в містах. *Комунальне господарство міст*. 2020. №156/3. С. 17-21. <https://DOI10.33042/2522-1809-2020-3-156-17-21>.
5. Davidsson P. An analysis of agent-based approaches to transport logistics. *Transportation Research part C: emerging technologies*. 2005. №13/4. P. 255-271. <https://doi.org/10.1016/j.trc.2005.07.002>.
6. Melo S. Fundamental emerging concepts and trends for environmentally friendly urban goods distribution systems. *International Encyclopedia of Transportation*. 2021. P. 320-323. <http://dx.doi.org/10.1016/b978-0-08-102671-7.10766-3>.
7. Retail e-commerce sale worldwide from 2014 to 2023 (in billion US dollars). The Statistical Portal. URL:<https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales> (дата звернення: 20.10.2023).