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ANALYSIS OF THE CURRENT STATE OF DEVELOPMENT OF ELECTRONIC COMMERCE MARKET IN UKRAINE

Об'єктом дослідження є ринок електронної комерції. Розвиток електронної комерції дозволяє здійснювати господарську діяльність у світовому масштабі, пропонувати підприємствам товари та послуги незалежно від просторових та часових обмежень, зменшувати витрати на проведення та обслуговування операцій. Це, відповідно, дозволяє знижувати ціни та отримувати лідируючі позиції на світовому ринку. Одним із проблемних місць є визначення тих тенденцій, які склалися на зарубіжних ринках, що з цього на даний момент є в Україні. І, відповідно, який досвід може бути перейнятий нею з метою більш активного впровадження сфери електронної комерції в усі напрями економічної діяльності.

Проведено аналіз підходів до визначення поняття «електронна комерція», визначено стан законодавчого врегулювання сфери електронної комерції як на глобальному, так і на національному рівнях. Визначено, що на основі взаємодії суб'єктів господарювання в середовищі Інтернет можна виокремити різні типи електронної комерції, основними учасниками яких виступають споживачі, бізнес та уряд.

Статистичний аналіз стану розвитку електронної комерції в світі довів, що на сьогодні дана сфера стрімко нарощує свої обсяги. Світовими лідерами, звісно, виступають країни, які мають найбільший рівень впровадження інформаційних технологій в усі сфери діяльності, проте, Україна стала лідером Європи за динамікою розвитку електронної комерції.

Доведено, що в Україні є потенціал до розширення впливу компаній сфери електронної комерції. Так як Інтернетом ще не користується 35 % населення, а велика кількість користувачів надають перевагу зарубіжним сервісам через недовіру до національних підприємств та недосконалу законодавчу базу. До того ж, українські компанії, в основному, базуються на принципах моделі «бізнес-до-споживача», що, відповідно, дає можливість іншим підприємствам займати ті сегменти ринку, на яких взагалі не пропонується послуги через сервіси електронної комерції.

Ключові слова: електронна комерція, інтернет економіка, електронна торгівля, взаємодія суб'єктів господарювання в середовищі Інтернет.

1. Introduction

One of the most significant changes that the business world is experiencing now is the progressive development and implementation of e-commerce. With the rapid development of web and Internet technologies, e-commerce is increasing its volume on a global scale and is being formed as a separate sector of the economy. Every day, more and more enterprises in various countries around the world are introducing e-commerce tools into their operations, which allow them to attract new customers and, consequently, increase profits.

To date, scientists do not provide an unambiguous definition of the concept of «electronic commerce». However, countries that are leaders in the use of information technology, take an active position in the process of formation of national and international legislation. The developed regulations, respectively, define the concept, constituents, subjects of e-commerce, the legal framework for activities in this field, etc. Ukraine is not an exception, as well, it also pays enough attention to the development of the regulatory framework governing e-commerce activities.

An analysis of the current state of e-commerce development in the world and in Ukraine will make it possible to identify the main trends in this area, development prospects and threats arising between all participants in relations in this sphere. The influence that electronic commerce exer-

cises in the national economy of the country as a whole is also extended to individual business entities. In addition, it is worth noting that this area is so volatile, the analysis of statistical data, on the basis of which certain recommendations can be formed, should be carried out constantly. That is why the task of studying the current state of e-commerce development in Ukraine is relevant.

2. The object of research and its technological audit

The object of research is the e-commerce market.

The development of e-commerce allows to carry out business activities on a global scale, to offer enterprises goods and services regardless of spatial and temporal constraints, to reduce the costs of conducting and maintaining operations. This, respectively, allows to reduce prices and get a leading position in the global market. In Ukraine, this area is still significantly inferior to most countries. This is due to the low level of information awareness of citizens and their distrust of the field of e-commerce.

Accordingly, e-commerce should be viewed precisely as a separate sector of the economy, which in its meaning is not inferior to other areas. One of the problem areas is identification of the trends that have developed abroad in the field of e-commerce, and the disclosure of the possibilities of using foreign experience in order to spread e-commerce in Ukraine.

3. The aim and objectives of research

The aim of this research is studying the real state of the e-commerce market in Ukraine.

To achieve the aim of research the following objectives are defined:

1. To analyze the approaches to the definition of «e-commerce».
2. To determine the state of the legislative regulation of this sphere.
3. To analyze the types of e-commerce on the market.
4. To determine the main trends in the development of e-commerce in Ukraine based on the analysis of statistical indicators.

4. Research of existing solutions of the problem

To date, a large number of works are devoted to the study of the state of the e-commerce market.

Thus, the explanation of the concept of «e-commerce» actively began in the late 1990s – early 2000s. The authors divided into two camps:

- the former believed that e-commerce can be defined as the interaction between communication systems, data management systems and security, through which commercial information about products or services is exchanged [1, 2];
- those, supporters of more modern approaches, define e-commerce only as conducting operations for buying and selling goods on the Internet [3, 4].

However, today, no single vision of the definition of the concept of e-commerce has been achieved.

Scientists pay great attention to the study of the regulatory framework governing relations in the field of e-commerce. So, the works [5, 6] are devoted to the studies of the legislation of one of the leading countries in this field. In addition, in [5] a comparative analysis of the regulatory framework of various countries is carried out, the weaknesses and strengths of the legislation are highlighted and, accordingly, proposals are made on the legal regulation of problematic issues. The analysis of the regulatory framework developed by the Ukrainian government is described in [7], where it is determined that now in Ukraine the key need for the development of e-commerce is precisely the provision of a legal framework. In particular, the development of the Information Code of Ukraine, the development of a National Action Plan for regular review and implementation of various types of electronic commerce systems.

In order to study the current state of the e-commerce market, a significant number of reports are generated. Scientists, respectively, analyze published indicators and highlight general trends that are emerging in this area. Thus, in [8], both the main trends of the B2B market are investigated, and the most profitable segments and the main subjects involved are highlighted. The work [9] shows how the implementation of settlements and operations on the Internet affects the economic situation of countries, especially those that are developing.

The current state of e-commerce in Ukraine in recent years is studied in scientific papers [10, 11]. However, the statistical information is constantly changing and, accordingly, needs to be updated and the analysis of the new trends that influence the development of e-commerce in Ukraine.

5. Methods of research

During the execution of this work, the following methods were used:

- classification and theoretical generalization – for the study of the theoretical foundations of e-commerce;
- analogies and comparative comparisons – for comparing the state of e-commerce development in Ukraine with other countries;
- statistical analysis – to analyze the current state of e-commerce in Ukraine;
- abstract logical approach – for conducting SWOT analysis, formulating conclusions and theoretical generalization of the research results.

6. Research results

The beginning of the Internet economy can be associated with the breakthrough of the World Wide Web system in the mid-1990s. Since then, the Internet has become a service, an integrated global network with various multimedia goals. Concepts such as e-commerce, e-business, online economy, digital economy are relatively recent designs.

In general, the basic concept is the «Internet economy». Thus, this concept is based on three key characteristics: it is based on digital technologies that are intensively interconnected and global [12, 13]. The term «Internet economy» emphasizes support for linking economic entities and processes through electronic communication media.

Today, to describe economic relations on the Internet, the concept of «electronic commerce» is used, which is part of the Internet economy. Thus, the Organization for Economic Cooperation and Development provides two definitions of this term [14]:

1) in the narrow sense, e-commerce is the sale or purchase of goods and services between business, households, individuals, governments, and other public or private organizations, conducted over the Internet. Goods and services are ordered on the Internet, but payment and final delivery of a product or service can be carried out both online and offline;

2) in a broad sense, e-commerce is any form of business relationship where interaction between actors occurs through the use of Internet technologies.

Despite the fact that e-commerce has now become a separate sector of the economy, much attention is paid to the legislative regulation of this concept. Thus, in 1997, in accordance with the resolution of the UN General Assembly, the Model Law «On Electronic Commerce» was enacted. This legislation is a recommendation and, above all, should be used by states as a basis for the development of national legislation.

So, one of the most progressive countries, which began legislative regulation of relations in the field of e-commerce, is the United States. The legislative act «Basics of Global Electronic Commerce», operating in the state, regulates such aspects of relations in the field of electronic commerce:

- transformation of the global Internet network into an environment subordinated to market laws and mechanisms for the implementation of communications and the redistribution of goods and services between various actors;
- promoting the development and use of electronic payment systems for the full «digitalization» of payments;

- promoting the development of web services for e-commerce;
- establishment of a minimum state intervention in the electronic segment of the economy (the principle of self-regulation of e-commerce);
- confrontation with non-tariff restrictions of e-commerce on the Internet [6, 7].

Next, other countries that hold leading positions in the field of information technology (Canada, Japan, Singapore, Australia) supported and developed these principles laid down by US law in their own legislation.

Ukraine is no exception. Legal regulation of activities in the Internet economy was based on the adoption of the Law of Ukraine «On the National Informatization Program» in 1998 [15]. The final stage of the legislative definition of the organizational and legal basis of activities in the field of e-commerce in Ukraine, today, was the Law of Ukraine «On e-commerce», adopted in 2015 [16]. This law, in addition to the interpretation of the main definitions, establishes the procedure for conducting electronic transactions using information and telecommunication systems and defines the rights and obligations of participants in relations in the field of e-commerce.

E-commerce, according to the law, is defined as a relationship aimed at making a profit, carried out remotely using information and telecommunication systems, as a result of which participants have rights and obligations of a property nature [16].

It should be noted that in the theory of e-commerce, this industry can be distinguished by the types selected on the basis of the subjects of economic relations and their interaction between each other. The most common among them are:

1) business-to-business (B2B) – the interaction of companies, enterprises, and so on; through various virtual B2B platforms, these entities have the opportunity to exchange information, find new partners, counterparties and conduct trading operations. Enterprises can also, through appropriate services, provide themselves with various accompanying services, purchase equipment, etc. [17];

2) business-to-consumer (B2C) – the type with which the concept of «electronic commerce» is often identified; provides interrelation of various companies and suppliers of goods and services with end users on the Internet [18];

3) consumer-to-consumer (C2C) – provides interaction between the end users of Internet services (for example, online auctions, file sharing protocols, etc.) [19];

4) business-to-government (B2G) – the interaction of companies and enterprises with state administrative bodies. This system is becoming increasingly active in recent times. For example, the most rapid trend is the purchase of goods and services by governments of different countries and the leadership of international organizations on the Internet. In turn, commercial organizations have the opportunity to send their proposals and thus conduct a dialogue with the authorities [17, 19];

5) consumer-to-government (C2G) – the direction used to organize interaction between the government of the country and the final consumer. For example, in the US, almost all taxpayers filed a declaration of income through the sites of tax departments [19]. Today, such «digitalization» of relations between the government and citizens of

the state is being introduced in Ukraine (online ordering of passports, obtaining extracts from the cadastre, registration of documents, etc.);

6) mobile commerce (m-commerce) – buying and selling goods and services, exchanging information, making payments, etc. through wireless portable devices, such as mobile phones, smartphones, laptops and tablets, etc. These wireless devices interact with computer networks, having the ability to conduct certain operations on the Internet [1].

In general, the intensity of use by various subjects of possible e-commerce services, first of all, correlates with such indicator as the number of Internet users in the country. Let's analyze this indicator (Fig. 1).

Of course, given the high population density and the rapid spread of information technology, Asia occupies a leading position. Also, it is worth noting the countries of Europe and America, since these regions are highly developed and the introduction of Internet technologies is part of the active improvement of business efficiency.

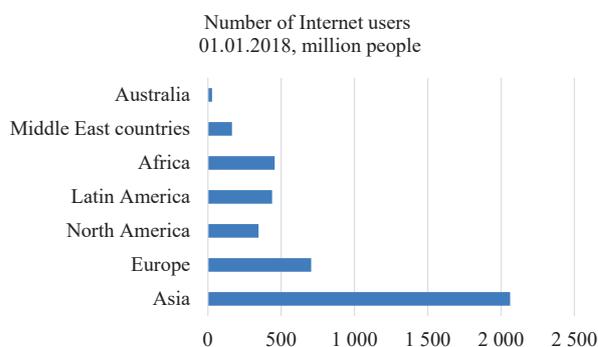


Fig. 1. The number of Internet users by the regions [20]

Ukraine also occupies not the last positions in the rate of penetration of Internet technologies (Fig. 2).

According to the Internet Association of Ukraine, in Ukraine as a whole, 21.6 million users use the Internet. Among them the most active are the following categories: schoolchildren/students, owners or directors of large and medium-sized businesses and military personnel (the level of Internet use by these groups is 100 %) [21]. Accordingly, this increase in the number of active users of the Internet leads to an increase in e-commerce turnovers, since various actors perceive the Internet as a natural habitat, where, accordingly, any needs are met.

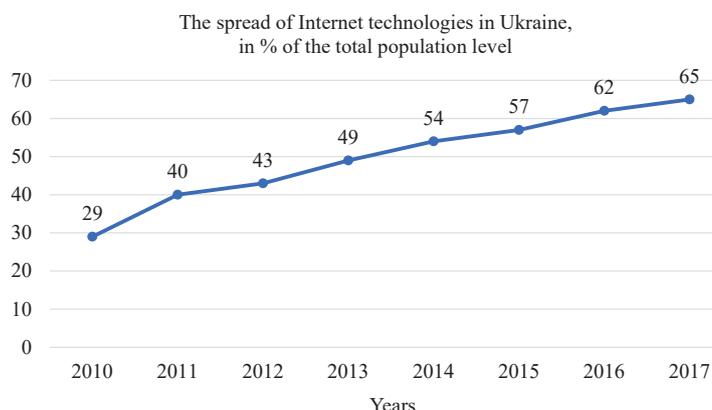


Fig. 2. The number of Internet users in Ukraine [20]

In general, about 67 % of Ukrainian Internet users visit websites related to e-commerce. The most dynamic part of the developing is the e-commerce implementation (Table 1).

Table 1

Dynamics of e-commerce development in Ukraine

Indicator	2012	2013	2014	2015	2016	2017
Retail trade volumes, billion dollars	99.5	111.0	76.0	47.4	45.4	43.5
Volume of online trade, billion dollars	0.57	0.88	1.04	1.17	1.50	1.70
Annual growth index of retail sales, %	20.3	9.4	1.5	14.4	12.4	6.0
Annual growth index of Internet commerce, %	46.8	53.3	75.2	107.6	50.4	25.0
Penetration of Internet commerce in Ukraine, %	0.6	0.8	1.4	2.5	3.3	3.9

Note: developed based on [22, 23]

If to analyze the growth rate of e-commerce in Ukraine, then they, in recent years, far exceed the growth rate in Europe. This is primarily due to a sharp increase in the level of Internet penetration in Ukraine, as well as the distribution of Internet users by age and income. So, for users with income levels above the average, it reaches almost 100 %, a similar situation in the age group 15–45 years, which provides a significant proportion of active Internet buyers [20]. Also, experts note that in 2017 only 9 % of Internet users did not buy nightly Internet. Thus, the overall growth in e-commerce has allowed Ukraine to gain primacy among European countries in 2016–2017. This trend will continue for no more than 2 years, as the growth rate of the penetration rate of the Internet decreases as its absolute value increases. This, in turn, has a significant impact on the dynamics of online commerce volumes [20].

Studies have shown that OLX.ua (40.4 % of users), Rozetka.com.ua (32.5 %), Prom.ua (26.5 %) are among the three most popular e-commerce sites in Ukraine in 2017. It is possible to see that these resources are related to B2B, B2C and C2C relationships. After analyzing the business models of the most successful Ukrainian e-commerce entities, it is possible to determine which sites were in the greatest demand [10]:

1) e-bulletin boards – sites where individuals or companies place promotional offers of goods and services (OLX, ria.com, shafa.ua);

2) e-shops, supermarkets – selling on the Internet goods purchased from different manufacturers, on their own behalf at their prices, mainly from their own stocks (Foxtrot; Comfy; Metro Ukraine, Rozetka, Modnakasta, Leboutique, LaModa);

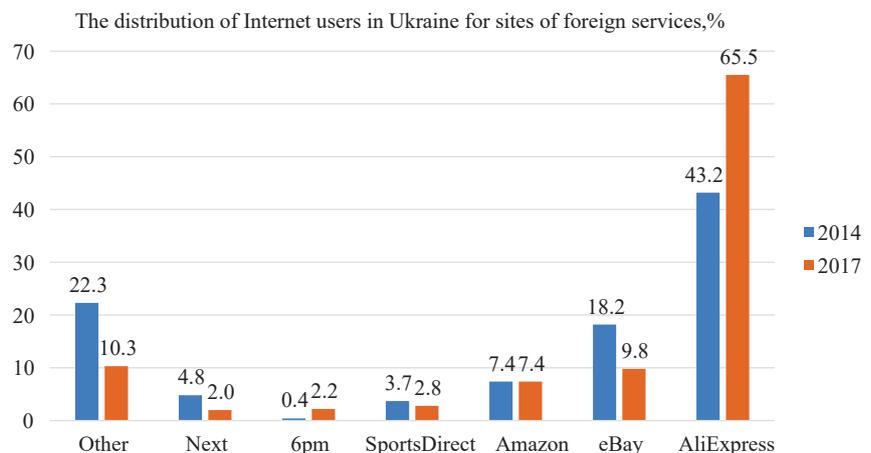
3) price aggregators – comparison of offers from different companies (Hotline, Price);

4) e-order table – a platform for uniting buyers and service providers (Uber, BlaBlaCar).

In addition to domestic sites, Ukrainians also use foreign e-commerce services (Fig. 3). It can be seen that trends in the use of B2B, B2C and C2C sites are also stored for foreign sites. The growing popularity of such a service as AliExpress can also be explained by a wide choice of offers, better services, the ability to pay hryvnia credit cards and being lower than the price offers. The difference in prices on foreign and domestic sites reaches 100 %. Since February 2017, this company has changed the conditions of delivery to Ukraine altogether, canceling free delivery, but in return it provided consumers with the opportunity to track the passage of goods all the way from the seller to the buyer. According to a study [22], the majority of buyers agree to pay extra for this option, as well as for speeding up the delivery, since prices, however, turn out to be much lower.

In general, with the creation of an increasingly active e-commerce space in Ukraine, the popularity of foreign sites is becoming lower, and domestic actors are increasingly using the experience of business models from other countries, incorporating it into their own functioning.

Also, it is impossible not to notice the general tendency of the Ukrainian e-commerce market to switch to omnichannel strategy (an increase in the number of types of devices from which users can access the Internet). So, in addition to using stationary computers and laptops, where it is possible to refer to the full version of sites, more and more consumers use mobile phones and smartphones (46 %) and tablets (17 %) [20]. Moreover, this strategy is used not only by the «big players» in the sphere of e-commerce, but also by niche merchants and service providers who are directly manufacturers.

**Fig. 3.** The distribution of Internet users in Ukraine for sites of foreign services [3, 10, 22]

7. SWOT analysis of research results

Strengths. The analysis of e-commerce in the world and in Ukraine, of course, makes it possible to identify a number of strengths of the implementation of such services, in particular:

- conducting operations on the Internet significantly reduces the time and costs, and, importantly, the transportation costs of the subjects of the relationship;

- e-commerce does not have any geographical or temporal restrictions: transactions can be carried out in any place where there is Internet, and at any time;

- exchange of information between different subjects is carried out fairly quickly;

- market segmentation flexibility – an e-commerce entity may, at its own request, change the market segment where it operates, depending on the resources available.

E-commerce allows to make the possibility of acquiring goods, receiving services, exchanging information, etc. without significant efforts for the end user. Even if the entity that offers its services has a rather specific product, it doesn't matter, the user who is interested in it will definitely be part of the network.

Weaknesses. Despite clear advantages, the e-commerce sphere has its weak points:

- security – the main difficulties in the field of e-commerce is the lack of security of information transmitted on the Internet. It comes down to such threats, users constantly encounter: fake websites and breaches of trade secrets, namely, a clear fixation of who it is, the goods, when, from which the supplier bought;

- instability of the hryvnia against the dollar, which leads to a significant over-pricing in the Ukrainian subjects and, accordingly, causes a reorientation to foreign services, for example, Chinese, as evidenced by the provided statistics;

- imperfection of the nationality of the legislative base – since Ukraine adopted a law regulating relations in the field of e-commerce one of the latter, the regulations still need to be significantly improved. And also do not take into account the specifics of e-commerce transactions in some areas;

- significant delivery time of goods – since the majority of e-commerce entities do not have their own logistics infrastructure, they apply for the corresponding services to third-party enterprises, which do not always take into account the deadlines determined by the sellers. Such enterprises operate on the basis of their own developed schedule and tariffs;

- insignificant spread of cashless payment systems and the unreliability of Ukrainian payment systems.

Opportunities. It should be noted that the analysis of the market makes it possible to identify the following opportunities for e-commerce entities:

- constant growth of Internet users greatly expands the possibilities for attracting consumers of goods and services;

- consciousness of consumers is changing every day more and more towards the inclination to introduce information technologies into all spheres of life, including the implementation of operations on the Internet;

- subject of e-commerce always has the potential to expand due to the coverage of new, different from the usual, market segments, as well as the involvement of other segments of the population;

- management of the service provider enterprise is not limited by time or space.

Threats. Among the threats that arise before the subjects of e-commerce, there are the following:

- spread of e-commerce in parallel contributes to the development of fraud in this area, which, as a result, leads to a loss of user confidence;

- competition level in the field of e-commerce is significantly increased due to the lack of time and geographical restrictions. Accordingly, the service provider has to compete not to lick on the domestic, but also

on the global level, which requires the involvement of additional resources;

- violation of the confidentiality of information transmitted on the Internet;

- changes in the real political, economic, cultural environment can significantly affect e-commerce entities.

8. Conclusions

1. The analysis of the approaches to the definition of «e-commerce» is carried out. It is determined that today this area is determined in two directions: as the implementation of only trading activities on the Internet, or as the transfer of all business areas to online mode.

2. The state of legislative regulation of the e-commerce sphere is determined. Thus, at the global level, a number of normative acts of the Organization for Economic Cooperation and Development, the United Nations, and others are devoted to this issue. The US law «Basics of Global Electronic Commerce» became basic, the main principles of which were introduced in other developed countries in their own legislation. In Ukraine today, this area is regulated by the Law of Ukraine «On e-commerce». However, although the pace of development of information technology in Ukraine and behind such developed countries as the United States, the state is included in the global information space. Due to the lack of a regulatory framework, the e-commerce market is developing independently. So, Ukraine needs to pay attention to the development of the national legislative base, taking as a basis recognized legal acts existing abroad by developed countries.

3. The analysis of the types of e-commerce, which operate in the market, allocated depending on the subjects of economic relations. These include the following: business-to-business, business-to-consumer, consumer-to-consumer, business-to-government, consumer-to-government, mobile commerce.

4. On the basis of the collected statistical data, the main trends in the development of e-commerce in Ukraine are identified. It is determined that 91 % of Internet users carry out a purchase operation in an online environment. The most popular among the Ukrainian ones are services like B2B, B2C and C2C. However, a significant part of trading operations is carried out by buyers through foreign, rather than domestic sites, due primarily to the difference in prices. So, the sphere of e-commerce in Ukraine has enough prospects for expansion.

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