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IMPORTANCE OF E-COMMERCE IN THE DEVELOPMENT OF ECONOMY AND BUSINESS

Abstract. The article investigates the tendencies of a global e-commerce market and its legislative regulation. The value of e-commerce for domestic businesses as well as the main advantages of electronic commerce over the traditional one is shown. The features of e-commerce implementation in Ukraine are determined.

Keywords: e-commerce, e-commerce market, economy, Internet-technologies, business.

Formulation of the problem. A rapid development of Internet technologies influences greatly all areas of economic activity today. This happens not only due to the fact that advertising in Internet is one of the most affordable methods of communication with customers that is characterized by the best perception rate. The growing number of Internet users contributes to the emergence of new channels for the distribution of goods, services and information. A swift growth of Internet technologies prompts the development of new institutions such as e-commerce. Until recently this concept was quite disputable and critically evaluated in the domestic economic science because it had no legal basis. Nowadays the situation changed and e-commerce is one of the possible instruments that may be used to stimulate the development of small and medium-sized businesses in Ukraine.

Analysis of recent researches and publications. Over the last two years the researches of e-commerce became very important

due to the adoption of the legislative regulation of this type of business activity. Each year many international analytic companies investigate a global e-commerce market and present their annual reports. Unfortunately, we have a limited number of similar researches of domestic e-commerce market. In addition, many foreign researchers, including A. Becker [1], describe the methodology and tools of e-commerce. There are several scientists in Ukraine that explore the significance and features of e-commerce. Let's note L. Jancheva [2] and V. Pleskach [3] among them.

The objective is to study the importance of e-commerce both for the development of the global economy and businesses in Ukraine.

Presentation of basic material of research.

According to E-commerce Foundation, 2520 million people worldwide use Internet. It accounts for 45 % of the Earth's population over the age of 15.1436 million of them perform purchases in online stores [4]. The global e-commerce market estimated at \$22.1 trillion. China is responsible for the largest share of this market, being followed by the United States and Japan [5].

The USA was on the first place in terms of the total commodity turnover provided by e-commerce (Table 1). China, however, is the closest rival with the total number of online customers surpassing the USA by almost 2.5 times.

Table 1
Commodity turnover provided
by e-commerce in 2016, according
to the countries with the largest number
of buyers [5]

Country	Buyers (million)	Annual spend by buyer (\$)	Annual B2C Sales (\$ billion)	Annual B2B Sales (\$ billion)	Annual total sales (\$ billion)
China	413	1508	623	2078	2701
USA	166	3072	511	6072	6583
Japan	57	1994	114	2380	2494
Germany	41	120	2	966	968
UK	38	4539	174	709	883
Brazil	33	376	12	112	124
Russia	30	756	23	700	723

The significance of e-commerce increases in the total output of countries. In particular, e-commerce accounts for almost 8 % of the GDP in the European countries. At the same time, Great Britain, China and France are the countries whose economies depend on e-commerce (Fig. 1). E-commerce in the USA accounts for 2.3 % of the country's GDP [5].

When it comes to Ukraine, statistics data claim that 21.9 million people (58 %) in 2016

were Internet users, of which 3.7 million (10 %) were buyers in online stores. In 2016, sales of goods and services through online stores amounted to UAH 1429 million [6]. The GDP of Ukraine amounted to UAH 2 383 182 million in 2016 and the share of e-commerce in it was only 0.06 % [7].

Despite the fact that many Ukrainians are already very confident users of the Internet as well as experienced online stores buyers, the domestic e-commerce market is only at its early growth stage. This fact is confirmed by a rapid growth of electronic sales volumes (35 % per year), that is typical for the initial stages of the industry's life cycle.

The main driving force behind the development of this industry is its legal regulation. Let's review how it happened in developed countries.

The activity of e-commerce companies in developed countries, the United States in particular, has been regulated since 1996. UNCITRAL Model Law on Electronic Commerce became an example for the development of many national e-commerce legislations. This law defines a conceptual apparatus and regulates the issues of legal force in data transmission as well as electronic signature contracts, issues of document circulation and many other matters.

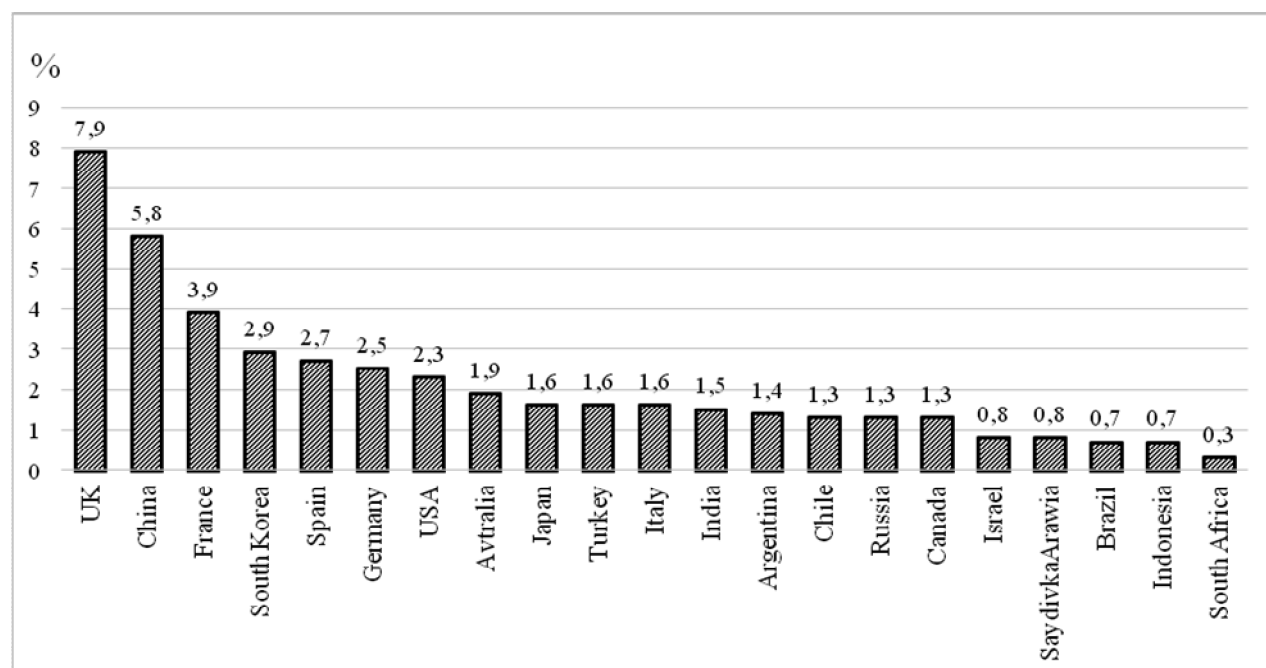


Fig. 1. Share of e-commerce in GDP in 2016, % [5].

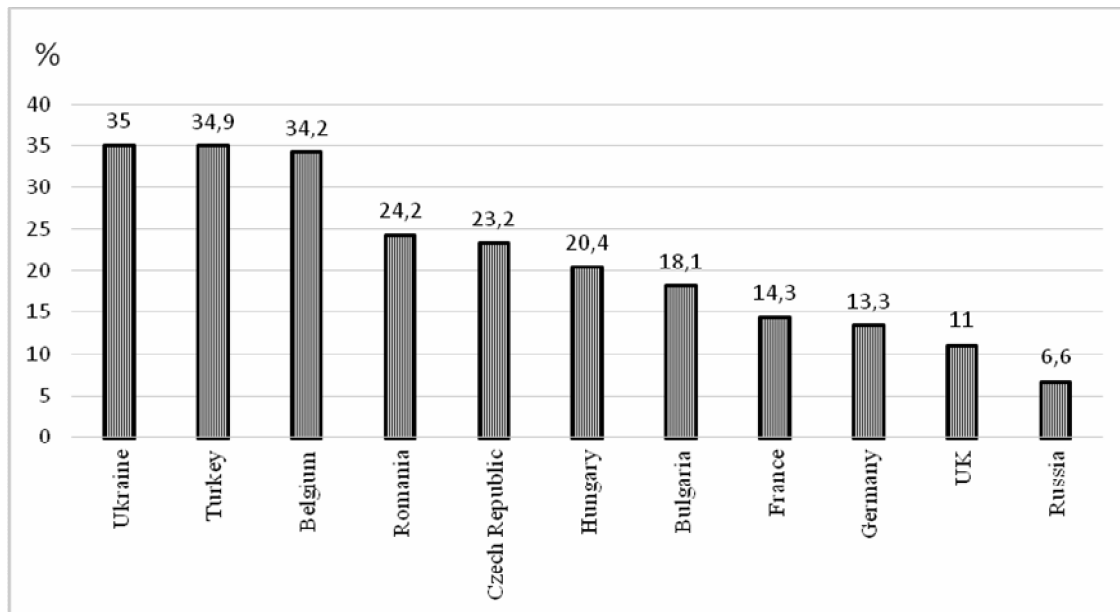


Fig. 2. Annual growth of electronic sales volumes in 2016, % [6].

A “golden period” of e-commerce started with the introduction of this law in the United States and lasted from 1995 to 1999. Amazon, a well-known online books store, started operating at that time and shortly after its legalization became a multimillionaire. Inspired by the success of this company, eBay, another project, was launched and in 1997 the first commercial domain .com appeared. E-commerce enjoyed the highest pace of growth in the economic history. Businessmen, investors and consumers felt incredibly enthusiastic about this period of industry’s growth that brought the small and medium businesses to a new level.

By 1999, an overwhelming majority of companies realized that electronic pages were a

necessary instrument in boosting their sales. Due to this, the income from e-commerce performed by American companies amounted to \$707 million in 1996. The indicator skyrocketed to 2.6 billion just in a year and already in 1998 the revenue from e-commerce in the USA amounted to \$5.8 billion [1].

The United States enjoy a constant growth of retail trade turnover for 15th year at a row starting from 2002 (Fig. 3). Even the world’s financial crisis that hit badly many industries hasn’t influenced e-commerce much. The e-commerce industry not only preserved its positions during 2008–2009 but confidently demonstrated a substantial surplus in 2009.

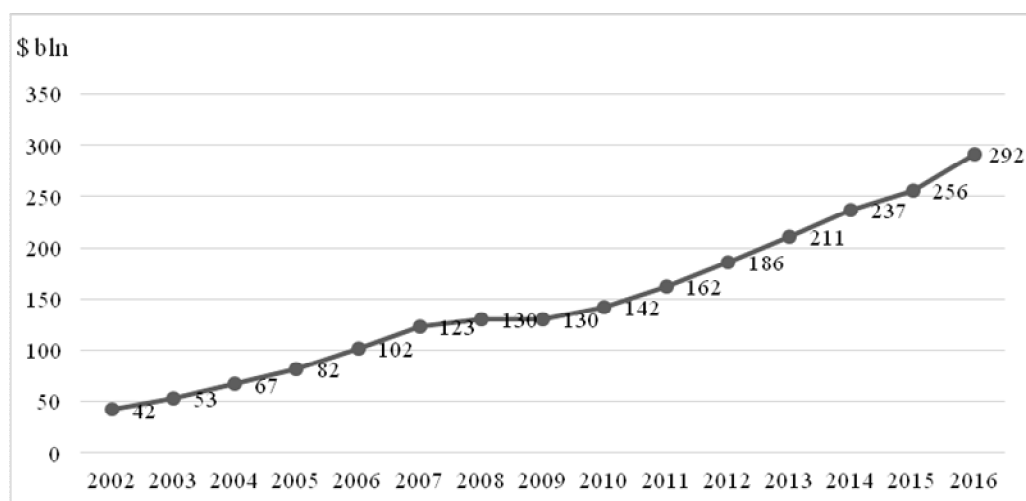


Fig. 3. Commodity turnover provided by B2C e-commerce in the USA, \$billion [5].

The activity of enterprises engaged in e-commerce in the EU countries is regulated by the EU Directive on e-commerce of June 8, 2000 [1].

Only in 2004 another EU Directive on the rules and taxation of Internet commerce was introduced. Electronic sales in Europe are growing at a rapid pace until now, especially in the southern countries. The turnover from retail e-commerce in EU countries is expected at EUR 602 billion in 2017. In 2016, the trade turnover amounted to EUR 530 billion [6].

According to the recent research performed by Frost & Sullivan, Alibaba Group (Hangzhou, China) is the absolute leader on the e-commerce market. The Group manages the following subsidiaries:

- Alibaba.com – a public joint stock company, whose shares are freely rotated in the stock market; the main activity is electronic commerce aimed at wholesale buyers;
- Taobao.com – an e-commerce model targeted at a retailer and running in two modes: shop and auction;
- Alipay – a platform for making online payments;
- Alisoft – development and sales of e-commerce software;
- Yahoo Koubei – a directory of enterprises in China, divided by regions and areas of activity.

Alibaba Group is not the only Chinese company that generates a large cash flow from e-commerce. While the main players on the US e-commerce market are eBay, Facebook, Amazon, PayPal and Google, China can boast of such companies as Baidu, Alibaba and Tencent, more known under the abbreviation BAT. However, these companies cannot be compared to one another, because each of them uses its own technologies, platforms and the unique sales approaches. Presently, the value of the product market provided by Alibaba alone is \$27.28 billion accounting for 11 % of the total e-commerce market. This dominant market position will provide the proposed products value of about \$6.7 trillion by 2020. Such trend makes B2B segment twice as large as the B2C segment (an expected market volume will amount to \$3.2 trillion by 2020).

Alibaba has achieved such crazy success during 11 years of its existence primarily due to its focus on B2B pattern. This company is a pioneer in doing such sort of business.

E-commerce is a new type of activity for the Ukrainian economy. Cabinet of Ministers of Ukraine issued an action plan on August 23, 2016 regulating the economic activity of enterprises operating on the e-commerce market. This document envisages the adoption of legal acts aimed at the regulation of electronic agreements, electronic money transactions, electronic document circulation, etc.

E-commerce is actively growing for about 20 years in Ukraine. Despite this, the Law of Ukraine “On e-commerce” [10], a legislative document that regulates the activity of e-commerce companies, was issued only in 2015. The document designates e-commerce as relationships that are aimed at making profit and take place remotely involving the use of information and telecommunication systems. These relations have all general characteristics of a commercial activity but there is, however, one substantial difference, namely, the agreements are concluded remotely by means of Internet. Similarly, if such relationships are carried out by means of other types of information and telecommunication relations, they will also have the signs of e-commerce.

Table 2

E-commerce types in terms of relationships between participants in 2016

Connections	Consumer	Business
Consumer	C2C Consumer-to-consumer	C2B Consumer-to-business
Business	B2C Business-to-consumer	B2B Business-to-business
Government	–	G2B Government-to-business

Existing types of e-commerce have slightly different features compared to the traditional commerce. Five patterns of goods, services and information trading may be outlined:

- C2C – a type of e-commerce formed by consumers with the participation of intermediaries;

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- C2B – a type of e-commerce, when consumers create demand for goods or services and producers provide them;
- B2B – e-commerce oriented on business-to-business relationships; it is the organization of wholesale purchases of goods, works or services;
- B2C – e-commerce focused on retail distribution of goods and services;
- G2B – e-commerce implying the state buying services from commercial enterprises [1].

Another rapidly growing form of commerce is a mobile commerce that is carried out wirelessly.

When it comes to the domestic e-commerce market, the G2B segment in Ukraine is the most successful one. According to the statistic data, the total amount of concluded agreements via Prozorro website estimated at UAH 163.3 billion in 2016. This project will certainly develop in the nearest future that allows attract more users to search for available orders through this system [9].

Table 3

Commodity turnover of Ukraine's e-commerce in G2B sector during 2015–2016

Procurement procedure	Period (year)	Cost indicators			
		UAH million	USD million	EUR million	RUB million
Open bidding	2015	101 620.70	49.96	115.215	0
	2016	115 796.1	15.99	36.08	1.19
Two-stage bidding	2015	24.188	0	0	0
	2016	537.35	0	0	0
Negotiable Procurement Procedure	2015	76 802.59	314.21	26.96	0
	2016	44 477.7	9.53	5.9	0
Request for price offers	2015	1012.53	0	0	0
	2016	1064.71	0.002	0	0
Prequalification of participants	2015	1022.47	0	0	0
	2016	1380.17	0	0	0
Total	2015	180 482.48	364.17	142.18	0
	2016	163 256.03	25.522	41.98	1.19

This particular area of e-commerce in Ukraine has its own peculiarities. Prior to the adoption of the law on public procurements through the Prozorro system, B2B e-commerce was not widely used in Ukraine. As a rule, sellers and wholesalers found each other on several websites that were mainly developed by the Russian specialists. With the advent of legislation that obliged public procurements to be made through the Prozorro system, the B2B segment became literally crowded out by the G2B segment. The B2B segment is now presented by the website Wishround.com.ua and is a “Many-for-many” model based on the creation of customer associations aimed at a direct collaboration with the product manufacturers.

C2C segment is represented by Prom.ua, Bigl.ua, Crafta.ua, Kabanchik.ua, Goodini.ua, which sold goods and services for UAH 8.5 billion

in 2016. At the same time, the sales growth rate is 73 % per year. The average check is UAH 885 and it grew by 7 % at the end of the year. The most popular goods on the websites of the C2C segment are clothing and footwear, household and garden goods, cosmetic products, appliances and gifts. However, the category of ordering food and tools is also growing rapidly.

B2C segment is represented by such well-known online stores as Rozetka, Modnakasta and LeBoutique. Financial results of these companies are not in a public access but the statistics on the attendance of their websites is available. Let's review it in more detail.

The table 4 shows that the main e-commerce player in the B2C sector is Rosetka online store visited by 23.600,000 people per month. According to the statistics of 2017, almost 40 % of all domestic Internet users are the visitors, and

therefore, the potential buyers of this platform. About 75 % of users make purchases by means of their smartphones in 2017.

Table 4

The most visited Ukrainian online stores in 2016 [8]

№	Seller	Number of visitors per month
1	Rozetka	23 600 000
2	Allo	3 500 000
3	Modnakasta	2 800 000
4	Comfy	2 600 000
5	F.ua	2 400 000
6	Mobilluck	2 400 000
7	Leboutique	2 300 000
8	Citrus	2 200 000
9	Lamoda	2 100 000
10	Eldorado	1 800 000

A large segment of the e-commerce market is also occupied by services provided via Internet. These include legal services, accounting services, tax consultancy services as well as various information services in all areas of human activity. Providing such services via Internet allows reduce the unemployment level as well as increase the clients base of a particular enterprise. However, much attention should be paid to the legal regulation of e-commerce business in service providing area. If any organization, company or business owner has its own website where the services are simply listed, it's just a source of information and such activity has nothing to do with the Internet commerce. A main feature of e-commerce is the signing of the offer in a variety of ways, which may include filling in the order form, adding goods to the basket, filling in a feedback form in which the initiative to buy a product or service is indicated. If the website doesn't provide the abovementioned opportunities, it is merely one of the means of traditional business advertising.

As a whole, the Ukrainian economy is based on small and medium business which fact is confirmed by the GDP indicators. In 2016, statistics data showed that small enterprises generated 20 % of GDP while medium ones accounted for about 43 % [8].

Table 5

The structure of business activity results in terms of their value, in 2016 [9]

Company size	Quantity	Sales (UAH, million)	Financial result before taxation (UAH, million)
Large-size	382	2 387 762,8	60 870,2
Middle-size	14 869	2 602 415,8	33 203,9
Small	291 118	1 224 550,8	-24 859,7
Total	306 369	6 214 729,4	69 214,4

As a rule, the large enterprises in Ukraine occupy monopolistic or oligopolistic positions in their industries, thus preventing small businesses from entering their markets. At the same time, e-commerce creates new opportunities for the development of small and medium-sized businesses because of its vast geographical coverage that is literally unlimited. In addition, it's financially affordable for any small business or entrepreneur to reach leading positions selling products via Internet. That's why e-commerce creates equal opportunities for all market players enabling the products of a better quality to win the competitive struggle and enjoy more demand at a more affordable price.

E-commerce for business is another additional marketing instrument that, if properly applied, may become the main one. The number of purchases through online stores is constantly growing in Ukraine. Leading positions are occupied by the stores selling household appliances and clothing. The distinguishing feature of market leaders is that they work via Internet only. Such pattern of activity provides them with a number of benefits.

The Fig. 4 shows, that the main benefit of e-commerce is its comfort for the customer: first, online shops serve their customers 24 h/7 days a week creating a steady inflow of clients that cannot be achieved in terms of traditional trading.

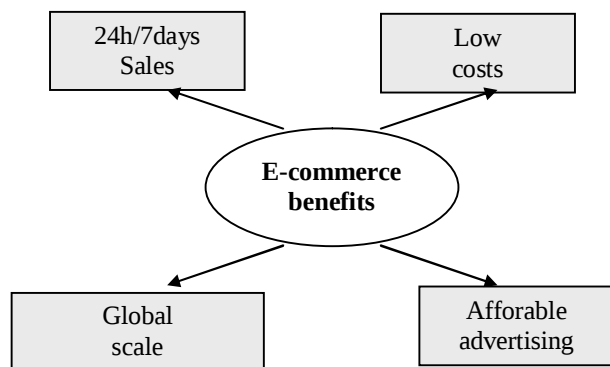


Fig. 4. Benefits of e-commerce activity.

Second, the business doesn't bear a burden of serving staff costs.

Third, the absence of a physical shop reduces the maintenance costs. It's enough to store goods in the warehouse.

Fourth, online advertising is more affordable than traditional advertising options. Additionally, the providers of effective e-commerce advertising usually have a direct access to the customers who are really interested in their products. This is achieved using the search engines that collect data about the interests and preferences of consumers and offer relevant products.

Apart from the benefits to the company itself, e-commerce offers a range of benefits both to the users and a society in a whole. First of all, all the purchases of goods, works and services are carried out in an anonymous format for users. With the help of specialized websites, users may find even the most specific products and services that are unavailable in the offices and the ordinary stores. All sales have personalized features, meaning they are focused on providing services or selling a product that you really need. E-commerce enables consumers to buy cheaper products. The ability to purchase goods or services through online stores is of great importance in the electronic socialization of society.

The society enjoys a number of advantages too. In particular, it is provided by a wide range of services. The availability of affordable goods and services enhances living standards as well as the national security. Speaking about the global environmental impact, online shopping reduces road traffic that exerts a positive influence on the environment.

Taking into account the fact that e-commerce makes it possible to bring services or products of

the own production more easily into the global marketplace, it is also of great importance both for economic development and improving the level of self-employment of the population. Since the large industrial capacities in some regions of Ukraine are absent, the population tries to organize its employment independently. However, the only thing that does not allow realize it in a full scale is the difficulty in entering the market. It is the electronic commerce that promotes the economic potential of the country through the development of creative and entrepreneurial potential of its population that has an incentive to create new products and bring them to the world markets. In Ukraine, the market of hand-made goods is actively developing nowadays. This is the domestic production of food or non-food products that enjoy a high demand because of well-organized advertising campaigns through the Internet, in particular social networks. Social marketing allows offer the products and services to a more engaged audience which is easy to identify in social networks.

Presently, there are only several important aspects that can be considered as the disadvantages of e-commerce. A fraud is perhaps the most sensitive problem in this respect. It is difficult to eradicate it without a perfect system of state control over the implementation of e-commerce practices. As a rule, E-shops work, using payment systems like Interkassa, which practice high interest rates for payments. It's important to introduce at least 3–4 operators that will serve the market to make the market prices of interests more interesting for business. Due to the imperfections of legislative regulation of e-commerce activities and the lack of appropriate control over its implementation, an overwhelming majority of businesses in Ukraine belongs to a so-called shadow economy.

Conclusions and perspectives for further research. The study enables us to conclude that e-commerce has occupied an important place in the economies of the developed countries long ago, providing them with significant competitive advantages as well as new growth opportunities. It's hard to overestimate the value of e-commerce for leading global businesses. E-commerce has a tremendous potential that changes the traditional

principles of doing business and is able to create a solid foundation for the competitiveness of both the national economy and the individual company.

Though demonstrating a high growth pace, e-commerce technologies in Ukraine are now on the beginning of the difficult way of development. The leading world experience should be studied thoroughly and then implemented considering domestic economic reality. E-commerce allows small businesses to have their place on the market along with the big companies. The main advantage of e-commerce is that it can significantly reduce the enterprise's costs and offer an attractive price for goods and services. In addition, unlimited geographic coverage makes it possible to increase the volume of sales expanding on the global marketplace. The development of entrepreneurship in Ukraine owes itself much to the growth of e-commerce, since the produced goods and services can reach not only the domestic but the world market as well. Modern delivery systems allow operate in the global market effectively, which first of all contributes to the improvement of positive reputation of Ukrainian producers and promotes the development of the country's economy. Today, mostly due to the fact that domestic e-commerce does not rely on a perfect regulatory system yet, (especially because the control over the activities of e-commerce companies is absent), there is a certain percentage of fraud that is difficult to eliminate. An imperfect control system that should be abolished at the legislative level enables many online businesses to hide their incomes and avoid paying taxes to the budget. The development of e-commerce should be based primarily on a state support. The state should not only create a legislative framework, but also improve the

electronic payment system of Ukraine and implement effective systems for monitoring the activities of e-commerce companies.

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