Modern E-commerce as the basis for the development of transport and logistics providers in Ukraine

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Article info

Received 21.06.2018

Accepted 31.08.2018

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Popova, Y., Shkurenko O., Tregubov, O. (2018). Modern E-commerce as the basis for the development of transport and logistics providers in Ukraine. Fundamental and applied researches in practice of leading scientific schools, 28 (4), 117-121.

The article examines the state of e-business and prospects for its further development. A number of problems that complicate the use of e-Commerce in Ukraine, namely legal problems, fraud, risks. It should be noted that the underdeveloped legal component contributes to the spread of fraudulent transactions carried out with the help of stolen card details; the appearance of the shops, completely disappearing from the market after a successfully executed fraud, the fictitious shops intended for gathering information about the cards, and thus the emergence of psychological factors - buyers appear to distrust the conduct of consumer transactions via the Internet. The role of e-Commerce in the activities of transport and logistics providers is also highlighted. For successful strategic management of the online store it is profitable to use the services of intermediaries: outsourcing companies with the necessary experience in receiving calls and orders; a professional courier service that will fulfill its obligations much better than others. The calculation of e-business contribution to the gross domestic product growth is proposed. The relationship between the components of the network readiness index and the contribution of e-economy to GDP growth is analyzed. Countries with the most developed infrastructure, high rates of individual use of network resources and developed regulatory environment loyal to market conditions have more efficient e-economy.

Keywords: e-commerce; logistics providers, Online store, the index of network readiness, e-economy.

Introduction

Nowadays the number of on-line transactions is growing in developed countries. Companies of any market all over the world include e-commerce in their business plans. Big and small companies are developing the ways for use of new technologies to increase effectiveness of their control and production systems. Retailers are also steady interested in e-commerce. Such interest is expressed not only in researches of this market segment but also in specific measures intended to provide work effectiveness with constantly increasing customers flow.

E-commerce has great possibilities to reduce transaction costs and to extend markets. However, availability of real

logistic intermediaries is an indispensable condition of its virtual existence. Without such intermediaries e-commerce is impossible. Just these intermediaries ensure flow of funds and material assets in global net economy.

In practice different agreements for electronic data exchange or workflow are created and constantly improved to a greater or lesser extent that conforms to the law currently in force. General underdevelopment and fragmentariness of legal norms as for Internet business is kept in whole. Such norms are judicial barrier for e-commerce development in Ukraine and its integration into global e-market.

Goals of article

to study the state of e-Commerce and prospects for its further development in Ukraine, which will allow to enter the international arena and ensure stable economic growth of the national economy.

Materials and Methods

The theoretical and methodological basis of the research is the dialectical method of scientific knowledge, General scientific principles and provisions of the concept of formation of e-Commerce. To achieve this goal, a set of General scientific and special methods of knowledge and research, namely: methods of observation, comparison, generalization, abstraction, formalization, analysis and synthesis, the method of comparative analysis, the method of theoretical generalization.

Results

The first systems of e-commerce appeared in 1960s in the USA. For this reason the standards of Electronic Data Interchange among organizations were created. They are considered to be a set of rules for electronic execution of standard business documents: orders, invoices, customs declarations, insurance forms, accounts, etc (Benesco, 2001). E-commerce began with buying and selling operations and money transfer through computer systems. Traditional commerce forms its basis, and the forerunners were the following: the order of goods by telegraph, telephone, post, etc. But Internet trading has a great advantage. It is the opportunity to occupy the niche, which was prepared some decades ago at a new technological and economical level. Undoubtedly, it helps a new form of trade in the process of development. Ukrainian market of Internet payments began to develop in spring 2001, when the shop Bambook.com.ua was the first to announce about payments being received by means of such cards as Visa and MasterCard. The share of orders on Bambook.com.ua, paid through the net, had already reached 10-15% in 3 months time (Kartashova, 2007, Garmider, Orlova, n.d.). It indicates that Ukrainian buyers understand advantages of on-line payments well.

Rapid growth of Internet users will become a mover for Ukrainian economy, which is represented by computers and communications, advertising and media industry, Internet servicing and e-commerce.

In spite of the rapid growth of e-commerce, this market is still at initial state in Ukraine and needs more time for proper development than in developed countries. It is explained by the number of factors.

Firstly, there are a number of judicial problems in Ukraine that complicate the use of e-commerce.

Secondly, fraudulent transactions prevent from development of e-commerce in Ukraine. More than 30 kinds of frauds are carried out by means of Internet.

Thirdly, most of Internet shops, that are set up today, are closed down very quickly. The problem is not in the inability to promote the shop in minimum terms – it is necessary to undertake measures resulting in income and make maximum efforts. The failure cause is usually in a great number of risks that the shop owners run into. It concerns

especially such Internet shops that start in regions. They have to develop a site taking into account some features.

Business success depends completely on the region. The possibility and rapidity of making own capital just depends on the specificity of every individual region.

Internet shops in Ukraine have certain features that distinguish them from foreign analogues. Unlike the USA and Europe, where the branches are included into the list of the leading on-line shops, full-fledged virtual resources of e-commerce are the most popular in Ukraine.

Other inhibitive factors for e-commerce development in Ukraine are:

- lack of laws describing definitely the use of electronic digital signature or means of information protection;
- underdevelopment of on-line means of payments as a result of general lack of bank cards among population;
- national traditions of attitude to work resulting in inability to process orders in Internet fast, qualitatively and effectively;
- lack of perspective local content resources in the country (Zhelihovsky, 2007).

It should be pointed out, that e-commerce develops not so fast as other segments of native Internet market and has moderate investments, because Internet shops haven't got mass recognition and use among Ukrainian customers.

Such organizational form of information and trade interaction among companies through Internet as e-commerce B2B fulfillment is very promising in Ukraine. In terms of intensification of international labour division, active development of joint commerce – when enterprises not only buy products from one another but also cooperate in production of new goods and services – e-commerce of such direction is of great importance because it is intended to establish long-term partner relationships among enterprises by means of communication networks.

Business transfer to Internet virtual setting leads inevitably to the change of essence and content of intermediary activity. A lot of functions of inside control and delivery organization are passed to intermediaries because cloud technologies enable to carry out these functions faster, cheaper and more effective. Network intermediaries change traditional (wholesale and retail) intermediaries and promote goods even without having them available.

It should be noted that corporate portals are created, where corporate information is systematized. Certified users have an access to it. Corporate systems of such companies as Quasar-Micro and Softline are good examples. Establishing e-markets, control systems for packaging chains, control systems for customers' relationships are also promising for Ukraine.

Use of open international standards is an important step toward the improvement of any system "Business for business". Ukraine has already had technical regulations for these technologies – national electronic catalogue for goods is created. Undoubtedly, world trends influence the development of international e-commerce in Ukraine. Firstly, there is computer selling boom because of price-cutting for computer systems and software for the last two years. The second trend is in the growth of the number of Internet users. According to prognosis, more than 1 milliard people will have used Internet and it will have been developed more than 100 million sites by 2020.

Internet influence on economy and society in Ukraine is already noticeable. It is expected to be growing up rapidly. But analysis and evaluation of this effect are difficult enough, because they need both including the factors to be evaluated (e.g. value of e-commerce or expenses for Internet access) and analyzing indirect factors to be impossible to evaluate (e.g. positive influence on productivity or communications effectiveness).

Electronic economy contribution in GDP growth can be calculated in such way: GDP (designated as Y) consists of electronic economy (Y₁) and other values (Y₂):

$$\frac{Y'}{Y} = \frac{Y_1}{Y_1 + Y_2} \left(\frac{Y'_1}{Y_1} \right) + \frac{Y_2}{Y_1 + Y_2} \left(\frac{Y'_2}{Y_2} \right) \quad (1)$$

Left part of this equation is a value of GDP growth. The first part of the right half represents a share of electronic economy multiplied by value of electronic economy growth. The second part represents a share of non-electronic branches of economy multiplied by value of growth. This equation shows, which contribution electronic economy makes in the growth of national economy. If both parts of equation are divided by value of GDP growth, there is a following equation 2:

$$1 = \frac{\frac{Y_1}{Y_1 + Y_2} \left(\frac{Y'_1}{Y_1} \right)}{\frac{Y'}{Y}} + \frac{\frac{Y_2}{Y_1 + Y_2} \left(\frac{Y'_2}{Y_2} \right)}{\frac{Y'}{Y}} \quad (2)$$

The first part of the right half of this equation represents contribution of electronic economy in the growth of national economy, the second part represents contribution of non-electronic branches of industry in the growth of national economy, and their sum is equal to 1.

To evaluate the indicators, which can affect contribution of electronic economy in GDP growth, it is necessary to analyze in details what unique conditions are created in each country for development of electronic economy and their role in the growth of electronic economy. As a data source for each of 13 countries we use network readiness index (NRI) of the World economic forum, because it is the only international index of informatization that involves all the countries under research. This indicator evaluates readiness of world countries to participate in interrelated world and use ICT for increasing competitiveness and development level. It has been issued yearly by the World economic forum and international business school INSEAD since 2002. The index is formed on the basis of 3 indexes-components (environment, readiness, consumption), each of them includes 3 sub-indexes, which characterize, accordingly: market, normative legal and infrastructural environment; readiness of population, enterprises and government bodies to use net technologies; ICT consumption by population, enterprises and government. 68 indicators were used for index calculation. One part of indicators is based on international statistics; other part is based on expert inquiry of enterprises managers in the countries under evaluation (Tab. 1).

Discussions

The link between 9 sub-indexes of network readiness index and the contribution of electronic economy in GDP growth. We can conclude that regulating policy of the government, net use by population and infrastructural environment affect the value of contribution of electronic economy in GDP growth most of all. The ratio of electronic economy to GDP varies in different countries. Great Britain is on the top of the rating with indicator of 7,2% according to Boston Consulting Group. According to Boston Consulting Group ratio of electronic economy of Ukraine to GDP is 2,5%, that is higher than in such developed countries as Spain and Italy. But we may consider that Internet contribution in Ukrainian economy is much higher than a share of GDP, because some economic effects are not directly shown in GDP to avoid double flow. A number of social effects of Internet, which have a side effect on economy, cannot also be included into GDP.

If we refer to rating of Ukraine, which is also represented in the reports of the World economic forum, Ukraine took 29th place by component «Readiness», but it took 105th place according to macroeconomical and general regulating aspects (The Global Information Technology Report 2013). So, our country may prospectively have higher indicators in the rating. In whole there is a positive dynamic in international rating of Ukraine.

To use the potential of positive effect of wideband connection on economic growth, competitiveness and social integration of Ukraine, it is absolutely important to remove weaknesses in ICT sphere, especially in general national infrastructure.

The vast majority of legal relations between the participants of e-Commerce is still not regulated by special laws addressed to them or other sources of law. In practice, various types of agreements on electronic data exchange or on electronic document flow, to a greater or lesser extent, are created and constantly modified, which corresponds to the current legislation. In General, there prevails a General lack of development and the fragmentation of legal norms regarding the Internet business. Such rules are legal barriers to the development of e-Commerce in Ukraine and its integration into the global e-market.

Conclusions

So, the following is necessary for active participation of Ukraine in international electronic business: active implementation of basic equipment, computers and telecommunications including countryside that provides for computer literacy of residents and proper level of infrastructure development; stimulation of rapid growth of net infrastructure: development of Internet shops, net business structures, net operators and some big domestic Internet portals; skills training for work in Internet at all levels of educational system including government employees; development of internal customers market, increase of buying ability by means of achievement of stable economic growth.

Table 1
Index structure of network readiness (The Global Information Technology Report 2009-2010)

Main components	Sub-indexes	Indicators
1	2	3
Environment	Market conditions	Availability of venture capital
		Development level of financial market
		New technologies export
		Development state of clusters
		Burden of government regulation
		Amount and influence of taxation
		General taxation rate
		Time, necessary for launching own business
		The number of procedures, necessary for launching own business
		Intensity of local competition
		Freedom of speech
	Regulating policy	Ownership
		Effectiveness of legislative bodies work
		ICT legislation
		Independence of courts
		Competition quality in Internet servicing
		Effectiveness of legal frame in disputes settlement
		Effectiveness of legal frame in drawing up regulations
		The number of procedures necessary to set up a contract
		The number of days necessary to set up a contract
		Intellectual property protection
	Infrastructure	Secure Internet servers
		Scientific and engineering personnel
		Level of personnel with higher education
		Education expenses
		Quality of scientific and research institutions
		Telephone lines
		Production of electrical industry
		Accessibility of digital content
		Internet traffic
Readiness	Individual	Cost of home phone connection
		Cost of phone lines use
		User charge for home phone
		Buyer awareness
		Educational system quality
		Quality of mathematical and scientific education
		Expenses for month wideband connection subscription
		Cost of call in cellular net
	Business	Quality of business schools
		Cost of phone connection for enterprises
		Computers, import of ICT and other services
		Quality of local suppliers
		Accessibility of new phone lines
		Monthly phone charge for enterprises
		Industry and universities cooperation
		Enterprises expenses
		Availability of specialized services for personnel training
		Level of personnel training
	Government bodies	Government order for advanced technologies
		Government priorities in ICT
		Importance of ICT in understanding the future by the government

Use	Individual	Personal computers
		Users of wideband Internet
		Mobile phones users
		Internet users
		Internet accessibility at schools
	Business	Level of internet use by enterprises
		Ability for innovations
		Patents for inventions
		Level of technologies use by enterprises
		Newest technologies export
	Government bodies	Inventions export
		Foreign technologies licensing
		Services accessibility in interactive mode
		ICT use and governing effectiveness
		Level of ICT penetration
		e-participation index
		Government successfulness in ICT propaganda

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