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**WORLDWIDE TRENDS AND PERFORMANCE FEATURES OF  
ELECTRONIC COMMERCE AND ELECTRONIC BUSINESS ACTIVITY**

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**Abstract.** *The article analyzes modern changes and forms of electronic commerce and electronic business activity development in the global business environment. One has classified and gave a detailed description of practical aspects of the application of the forms of entrepreneurial collaboration in the field of electronic commerce as well as described the role of the Internet in the process of electronic business expansion. The article takes a look into the matter of worldwide trends that are currently observed in the e-commerce markets. One applied the foreign experience of institutional support for the development of electronic commerce and electronic business.*

**Keywords:** *electronic commerce (e-commerce), electronic business (e-business), Internet, institutional support, informational flows.*

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## **Introduction**

The rush pace of scientific and technological development in all types of economic activity set in motion the appearance of new forms and methods of doing business and managing customer needs. Since the early XXI century, mankind experiences the influence of the worldwide information revolution like never before. It gradually changes the world's style of life. The galloping development of electronic networks is undoubtedly one of the largest manifestations of the informatization of society. The Internet has become the key link in the goods and services exchange process, which is caused by the high handling capacity of the information flows. At present, almost all business entities and international businesses focus their attention on the integration and development of the Internet-relations, which significantly increases the level of efficiency of business activity.

## **Literature review**

While describing the notion of electronic commerce, the majority of foreign authors generalize it as an activity, covering all types of transactions between organizations and interested parties (Chaffey, 2009). The American researcher (Zwass, 1996) gives the following characteristics to e-commerce: business information exchange, the development of business relations, implementation of business transactions using telecommunications networks, and commercial relations. This means that he emphasizes the business aspect of the notion. These researchers keep to the same idea (Devos et. al. 2014; Meier & Stormer, 2008) who determine electronic commerce as any form of business process, the interaction between the entities of which takes place via the means of electronic communication.

The business and trading aspects of e-commerce were also described by the researchers (Muhammad and Tanzila, 2012). They think that it includes the application of technologies in the financial business, online ticket reservation, provision, request, and use of the Internet for purchasing and selling goods and services, namely after-purchase services and support (Ramanathan, 2010). Thus, as you see, all those opinions regarding electronic commerce and the definition of the forms of its realization have something in common. However, the thoughts regarding this type of business activity change in proportion to the growth of the popularity of electronic commerce in entrepreneurial activity.

## **Methods**

The modern information society forms the methodological fundamentals for holding research on the existence and improvement of the e-commerce business. Such fundamentals include the globalization pressure, the increased competition, the rapid change of technologies, the great commercial potential of e-commerce tools, the ability to move their business to a qualitatively new level, which brings adjustments to the traditional understanding of the principles of conducting business, and the spread of the use of various information technologies and software tools.

## **Results**

### ***The entrepreneurial interaction in the field of electronic business***

The rapid development of information technologies in the late XX – early XXI centuries set in motion the beginning of cultural and economic globalization. The appearance of the global Internet network was the beginning of a period when computer technologies revolutionized almost all areas of human life. The entrepreneurs, who were the first to use the global network for e-commerce, received many competitive advantages, as well as quick access to information, and resources. The electronic commerce operates at three main levels:

The first level – Internet commerce – the simplest forms of interaction between the participants of the market, including traditional and public databases of information exchange.

The second level – electronic commerce – the transition from traditional trading practices to electronic ones, which is characterized by the liquidation of trading intermediaries who transform into managers, providing services and manage the processes of electronic commerce.

The third level – electronic business – the development and introduction of new forms of interaction between the entrepreneurs and new ways of information exchange, as well as methods of processing the received information and its interpretation (Martinez-Lypez, 2014). At present, electronic business entities can interact in various forms (Table 1).

At present, the Internet network quickly integrates into all industries of business activity, providing the implementation of business processes in the global electronic environment. The Internet becomes a business space, hosting electronic transactions via electronic tools. This promotes the acceleration of the capital turnover of business organizations and increases business profitability and the expansion of the web-representative office of the companies (Helms et. al. 2008).

**Table 1**  
**The forms of entrepreneurial interaction in the area of e-business**

	<b>Form of entrepreneurial interaction</b>	<b>Features</b>
Traditional forms	(B2C/C2B – Business-to-Consumer/Consumer-to-business)	The form of interaction between the entrepreneurs and consumers and vice versa. It provides extra possibilities for product and services delivery immediately to customers, while the consumers obtain wider choice opportunities. This form was one of the first strategies of e-business, including the direct flow of goods and services from manufacturers to final consumers, avoiding intermediate parties.
	(B2B – Business-to-Business)	The form of operational interaction of entrepreneurs at all levels, which focuses on the existing business, well-developed supply, marketing schemes, and well-established internal business processes. It provides an opportunity to combine internal networks of partners for joint electronic document management and creates a system for direct placement of orders with the possibility of detailing parameters, and tracking their implementation in the real-time mode, and is a new means of close communication. At present, this form is regarded as the most widespread one.
	(C2C – Consumer-to-Consumer)	The interaction between private individuals, related to purchase and sale, exchange or product delivery, service and information in the cyberspace. Among the examples of such form are: the advertising panels and Internet auctions.
Alternative forms	(B2B – Business-to-Business)	All levels of interaction using the electronic means between entrepreneurs who, in this way, can effectively build bilateral and multilateral economic relations, namely: sell products, place orders by themselves, and monitor their implementation using vendor databases, etc.
	(B2C – Business-to-Consumer)	Electronic retail commerce is oriented at the final consumer. The most prominent example of this type of e-commerce business is online retail trading, targeted at consumers.
	(B2A – Business-to-Administration)	The interaction between the entrepreneurs and administrative organs. It covers business, state, and international organizations. This segment of e-commerce is not well-developed but has perspectives for future development if the governments of the countries use their capabilities in a more actively for the support of entrepreneurs.
	(C2A – Consumer-to-Administration)	The interaction between consumers and the administration.

### ***Electronic commerce at a global scale***

The rapid growth of new markets is the key feature of electronic commerce on a global scale. The top ten most perspective West European markets rating also includes the British, German and French markets. The development of electronic commerce takes place at a rapid pace, which

indicates the high efficiency of this form of business making. The volume of the top ten e-commerce markets based on the results of 2018 is given in Fig. 1.

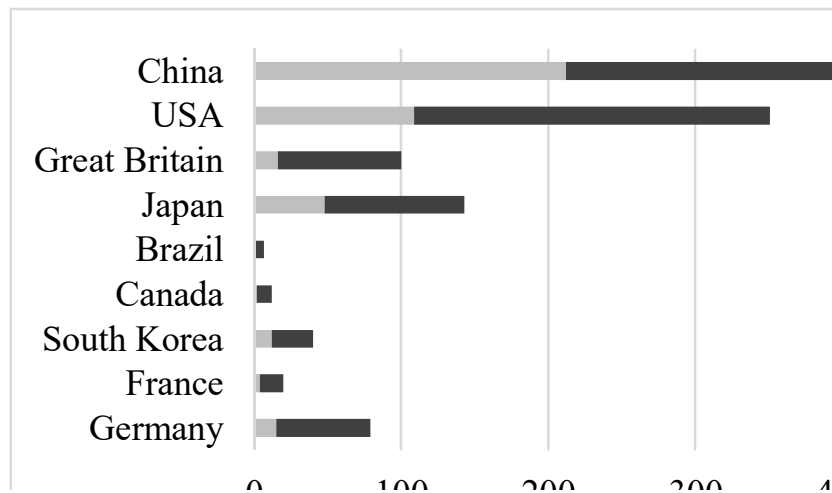


Figure 1. The volume of the largest e-commerce markets in the world in 2018 (E-Commerce Industry (2019))

The international ranking stays the same over the years. China is the e-commerce market leader with a turnover of \$562.8 billion. The United States occupies the second place, boasting a turnover of \$351.2 billion. China shows the highest rates of development. In 2018, its e-commerce turnover was \$1.7 trillion (2.8 % of GDP of the country) (Fig. 2).

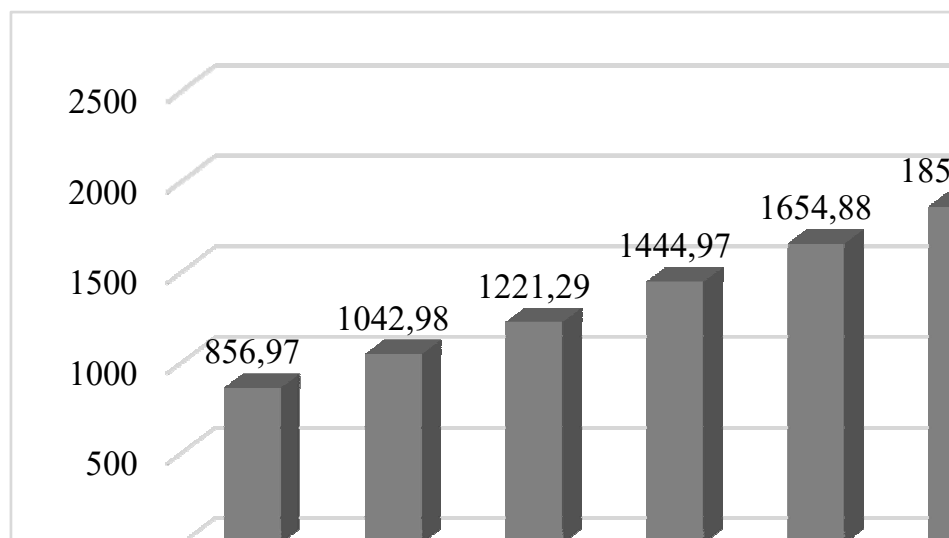


Figure 2. The level of global sales in the electronic sector B2C (Worldwide retail Ecommerce sales e-marketer’s updated estimates and forecast through 2019)

The implementation of the “online-to-offline” (O2O) service contributed to the increase in electronic sales from 2017 to 2018. The largest shopping centers foster cooperation with online platforms, which provides customers with the possibility to choose the goods offline and buy them at a reduced cost via the Internet. The market of online sales will rise fast thanks to the introduction of telecommunications technologies of the fourth generation, providing faster speed and accessibility (Nanehkaran, 2013).

### ***E-commerce institutional support***

In view of the e-commerce development dynamics, one has to mention that its market requires state regulations. The UNCITRAL Model Law on Electronic Commerce adopted following the resolution of the UN General Assembly on 30 January 1997 became the first step in the development of international law regarding electronic commerce regulations. His document has a framework, advisory nature and aimed at use by the countries as a basis for development of the

national legislation. The Model Law laid down the legal foundations of activity in the field of electronic commerce, gave the definition of the key notions, such as electronic document, electronic document traffic, digital electronic signature, the author of an electronic document, and an information system; determined the legal and evidentiary power due to the documents in electronic form, and specified the requirements applied to the electronic signature as a means of confirming the authenticity and integrity of an electronic document (Fonseca, 2014).

For the development of the Model Law, the UN member countries worked out the international Convention project report on the electronic agreements. Its key task is to form the uniform and mandatory regulations on electronic agreements and their implementation. This Convention is aimed at shifting the relations in the field of international electronic commerce to a qualitatively new, higher level of development.

**Table 2**  
**The foreign experience of the institutional support for the development of electronic commerce and electronic business**

Country	Regulatory instruments	Regularization of relationships in the field of electronic commerce
USA	The fundamentals of worldwide electronic commerce	<ul style="list-style-type: none"> <li>– the transformation of the Internet into a setting managed by market mechanisms for communication and exchange of the products and services;</li> <li>– assistance in the development of electronic payment systems;</li> <li>– the establishment of the common standards of commercial regulations;</li> <li>– the intellectual property protection within the Network;</li> <li>– authentication and personification of information;</li> <li>– the unification of information systems in sectors, which belong to different industries, including the production sector;</li> <li>– the promotion of web-services development for support of e-commerce;</li> <li>– the encouragement of healthy competition and push for the cooperation of national telecommunication systems;</li> <li>– the adversarial relationship to non-tariff restricts in e-commerce.</li> </ul>
Canada	The strategy of Canada	<ul style="list-style-type: none"> <li>– the assurance of the customer’s trust to “digital” economy: the questions related to the provision of e-agreements safety, cryptography, and protection of private data, and consumers interests have to be worked out in the framework of the partnership dialogue between the government and a private sector;</li> <li>– the regulation of specific issues related to e-commerce: the development of general flexible legal frameworks and trade regime, the adaptation of legislation in the area of tariffs and imposition of taxes, the provision of intellectual property protection for electronic products;</li> <li>– the improvement of information infrastructure: the creation of new high-speed communication highways, the provision of fare access and network connection and support of the competitive environment, the establishment of open standards, and assurance of compatibility of networking environment;</li> <li>– the popularization of e-commerce: the conduction of works related to “electronic literacy” of the population on the national level.</li> </ul>
Singapore	The plan for the development of the e-commerce system	<ul style="list-style-type: none"> <li>– the achievement of leading positions in the South-East Asia Region related to e-business;</li> <li>– the establishment of the correspondence between the elements of the e-business infrastructure in Singapore and the worldwide standards;</li> <li>– the maximum harmonization of basic legal and financial provisions with the worldwide requirements and norms;</li> <li>– the assurance of expansion of e-commerce, educational programs of high quality, and access to the Internet;</li> <li>– the establishment of e-commerce as a part of the business culture of Singapore society thanks to the updated system of education, wide use of its advantages by private entrepreneurs and the general public.</li> </ul>

The European Union actively participates in the formation of international law in the field of electronic commerce along with regulatory support of the UN e-commerce sphere. In 1998, one adopted the Directive on certain legal aspects of electronic commerce in the internal market. Its

target mission is to provide the conditions for the proper functioning of the international electronic commerce between the EU member states. When compared to the Model Law, this Directive is quite a large document in terms of size, which determines legal regulations of business activity in the Internet. Apart from general provisions, it includes the set of norms, regulating separate aspects of electronic commerce. The Directive of the European Parliament and the Council of 13 December 1999 on a Community framework for electronic signatures is another important document, which forms the European law in the field of e-commerce (Boughzala et. al., 2015). The national legislation of specific countries, regarding the Internet-related regulations, is also developing extensively (Table 2). Especially active legislation is observed in the USA and European countries.

Thus, we see that the entrepreneurial activity in the field of electronic commerce might have further steps to its improvement, which can be reflected using the following provisions:

- the improvement of competition – the access to the information of competitors increases the level of requirements of the potential customers, in light of this, the entrepreneurs are forced to change the ways of organization and business management, the barriers between the departments of the company disappear, and their relations become simpler;
- the globalization of fields of activities – the information exchange significantly changes the spatial and temporal scope of commerce;
- the personalization of interaction – it provides detailed information on the requests done by each customer and automatically offers products and services based on the individual requirements of people;
- the reduction of product distribution channels – the goods are delivered directly from the manufacturer to a customer, avoiding traditional channels in the form of wholesale and retail warehouses, which leads to a reduction in the product value;
- saving of expenses – each process, which might use the electronic interaction, has the potential to reduce the expenses of the entrepreneur.

### **Discussion**

The gradual transition of the global telecommunication networks to digital standards resulted in the emergence of a common e-network infrastructure, which, in its turn, promoted the disappearance of differences between the phone network and the data communication networks, the utility systems and the corporal networks, which has significantly influenced the development of worldwide electronic business and is well-received by the international business environment. Among the key advantages for entrepreneurship are moneymaking and the creation of integrated chains of added value, the achievement of material effect on all international aspects of electronic commerce organization – from strategic planning and business processes up to the formation of efficient relationships with key target international online viewership (consumers, personnel, and partners) under current conditions of the worldwide information society development.

### **Conclusions**

Thus, the authors have systemized and summarized the evolution of applied views related to the study of the genesis of the origin and formation of the worldwide electronic commerce concept. They also determined its main components and features. The powerful capabilities of the use of the Internet in the field of global e-business (e-commerce) caused the emergence of an increasing number of diversified commercial business structures of different types and, as a consequence, new acronyms of international significance, which denote them and used in international e-business. The foreign experience of the institutional support for the development of e-commerce and electronic business points at a high grade of integration of electronic tools of business into the general economic and social processes around the globe. The actuality of implementation of business initiatives using the tools of e-commerce is certainly an important aspect as such an approach optimizes the processes of management and control, providing at the same time an impressive economic effect.

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