Features of e-business development in the construction industry

Evgeniya Yu. Gorbachevskaya¹, Lubov Nikityuk² and Oksana G. Timchuk²

¹Irkutsk National Research Technical University, Department of Real Estate Survey and Management, 83 Lermontov st., 664074, Irkutsk, Russia
²Irkutsk National Research Technical University, Department of Economics and Digital Business Technologies, 83

Abstract. The research aims to develop a set of measures for planning long-term financial security and stability of the electronic business in the construction industry. The article determines the role of e-commerce and e-business for development of the national economy, structures investment and innovative approaches to national economic development. Currently, electronic commerce is the main activity of electronic business. The level of its development determines the degree of penetration of electronic business into other sectors of the national economy. The authors determined the range of problems of current e-commerce market development. On the basis of statistical data, e-commerce development trends up to 2020 were described. Based on the study, the authors proposed a model of relationships between participants of the e-business sector for developing an innovation component, including the one applied in the construction industry. According to the authors, to develop the e-commerce market, it is necessary to introduce investment-innovative tools. E-commerce will contribute to the innovative economy development, in particular the development of e-business. E-business will increase competitiveness and reduce financial and time resources, etc.
Introduction

In current economic conditions, special attention is paid to the improvement of the innovative component of business activities in order to improve business efficiency (including that of the construction industry) as the current business methods applied in Russia do not fully comply with international trends.

E-business as a financial category involves business activities based on global information and telecommunications networks maximizing profit. The main difference between e-commerce and e-business is that e-commerce is a form of transaction. E-business is the main line of business activities of an enterprise aimed at transforming its business processes [1].

Methods

Based on the previous studies, the authors developed their own model of interaction between participants of e-commerce and suggest organizing activities in the construction industry using e-business (Fig. 1). The model is variable rather than universal [2-6].

Figure 1. Model of relations between participants of the e-commerce process in the construction industry: A – information space uniting participants of the construction industry by different features; B – government; C – business environment; D – consumers; F – banks.

The information space can unite participants of the construction industry of the e-business through the sales market, materials market, market segments or individual components of the activities (consulting services, project financing, marketing, etc.). Figure 1 shows that online interaction in the information space involves electronic payment, signing and accepting agreements, using electronic digital signatures, providing consulting
services, including staff training, market expanding, finding new customers. These types of interaction contribute to the effective development of the national innovative economy.

Currently, the government of the Russian Federation is seeking to improve the regulatory framework and create the environment for e-business development, including development of e-business in the construction industry.

Initially, e-business developed in the retail sector. Indicators of this sector are indicators and an information base for assessing the potential for the e-business development in Russia.

One of the tools for promoting goods is online trading. This is also characteristic of the construction industry: at present, we are witnessing creation of a virtual base of objects for sale or rent. There are a lot of online marketing companies attracting customers in the segment of finished and construction projects, providing construction enterprises with materials, machines and labor resources, etc.

The main factors contributing to the effective promotion of e-business in the construction industry are as follows:

- Internet advertising is not very expensive compared to traditional types of advertising, but very effective; the cost of website maintenance or an online storefront is significantly lower than the cost of showcase maintenance. The average cost of one order in the e-commerce is lower despite the need for courier delivery.

- Some types of construction products can be used for the e-commerce due to their promotion characteristics.

With the development of online forms of interaction between the participants of the construction industry, it is not necessary for the participants to be located near each other, since consumers visit the office only for completing transactions which allows for saving real estate rent and maintenance costs in the city center.

In 2016, 22–23 million Russians made purchases over the Internet. The e-commerce market in Russia is one of the fastest growing in Europe, which increases the number of young online shoppers. Experts predict that by 2020 the volume of the electronic market will reach 2,180 billion rubles and will prevail over many other trading industries. As experts predict, by 2020, in the central part of the country and in the capital districts, online sales will increase by 30%, while in other regions of Russia the average growth will be about 55% [7] (Figure 2).
Figure 2. The size of the market of electronic commerce in Russia.

Based on the analysis, it can be concluded that the e-commerce market focused on the end user in the construction industry, is developing only in the sphere of sales, but development trends of this market make it possible to assume that consumers are interested in purchasing goods and services through online sales channels. To improve competitiveness and sales levels in the construction industry, it is necessary to develop the electronic business not only for materials, but for other goods and services as well.

Due to the difficult macroeconomic situation which will adversely affect the geographical expansion of logistics companies, it is expected that the short-term rate of growth of the express delivery market will decline. The slow growth of the e-commerce market can cause ruin of small businesses which will increase competition between the remaining companies, and may improve the quality of services provided. Taking into account an increase in the total number of users of smartphones and tablet computers, by the end of 2018, the total active base of mobile Internet users will be over 150 million. In addition, there is a decrease in the cost of mobile Internet services, implementation of high-speed data transmission technologies which contributes to the development of additional mobile services which will contribute to the e-business development [8–17].
Figure 3. Forms of electronic business at various stages of vital and administrative cycles of the investment and construction project.

The long-term development of the Russian e-commerce market is determined by the following factors.

Figure 3 shows that the most active form of e-business in the construction industry is virtual information environment. Despite the difficult economic situation, e-commerce in the construction industry is currently developing, entrepreneurs are looking for new opportunities to implement their own ideas. The active use of the information virtual environment contributes to maximum profit.

Any business activity developed with the help of e-business is an integral part of competitiveness improvement in the domestic and global markets.
For the effective development of e-commerce, the authors suggest granting investment tax credits to e-business participants.

**Conclusion**

In the upcoming years, the share of e-commerce in the Russian construction industry will increase. Therefore, its positive impact on the national economy and living standards will increase. It will contribute to new favorable opportunities: global presence and global choices, sales personalization, demand responses, cost reduction, new business opportunities, further development of the competitive environment.

It is evident that development of e-business will have a significant impact on the construction industry: it will increase the number of sales channels for the industry’s products, improve the quality of interaction between investment and construction entities, shorten the project implementation period and provide additional opportunities for business development in general.

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