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## THE USE OF B2B AND B2C E-COMMERCE MODELS AS A TOOL OF ANTI-CRISIS MANAGEMENT OF INDUSTRIAL ENTERPRISES

Halyna Kis\*

Ivano-Frankivsk National Technical University of Oil and Gas  
76019, 15 Karpatska Str., Ivano-Frankivsk, Ukraine

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### **\*Corresponding author:**

Ivano-Frankivsk National Technical University of Oil and Gas, 76019, 15 Karpatska Str., Ivano-Frankivsk, Ukraine,  
E-mail: galyakiss@gmail.com

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**Abstract.** E-commerce, which covers all types of trade via the Internet, has become a promising area for modern interactive business in a highly competitive environment. The use of B2B (Business-to-Business) and B2C (Business-to-Consumer) e-commerce models is extremely important for crisis-free development of business entities. The aim of this study is to prove the need for organisational, production, and management innovations that involve the introduction of B2C and B2B e-commerce models, as well as to identify the main sources of funding for such innovations in enterprises in crisis. To study the specifics of the use of B2C and B2B e-commerce models as an important area of anti-crisis management of industrial enterprises, such research methods and techniques as a systems approach, analysis and synthesis, induction and deduction were implemented. The process of managerial activity, such as making managerial decisions, is also used. The study proves that development, implementation and use of B2B and B2C e-commerce models can be seen as an integral part of business management under the threat of bankruptcy. In practice, insolvent enterprises have very limited opportunities to implement B2B and B2C e-commerce models, so in such a situation it is very important to set priorities and find their own reserves. The priority of internal sources of financing activities in the field of e-commerce of enterprises in crisis is also due to the following: domestic sources can be mobilised in a short time and, as a rule, do not require significant capital expenses; mobilisation of internal sources reduces the company's dependence on external creditors, partners and counterparts. The main way to identify internal sources of funding for projects for the development, implementation and use of B2B and B2C e-commerce models is collecting information about the organisation, results of its activities, financial condition and trends, analysis of financial indicators. The world economic development shows that those enterprises that do not pay proper attention to e-commerce do not have a chance to stay on the market for a long time. The development of

e-commerce models causes a change in the structure of the economy. Effective development, implementation and use of B2B and B2C e-commerce models determines the company's ability to quickly adapt to changing external environment and stay on the market for as long as possible

**Keywords:** anti-crisis management, e-commerce, B2B e-commerce model, B2C e-commerce model

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## ВИКОРИСТАННЯ МОДЕЛЕЙ ЕЛЕКТРОННОЇ КОМЕРЦІЇ B2C ТА B2B ЯК ОДИН ІЗ НАПРЯМІВ АНТИКРИЗОВОГО УПРАВЛІННЯ ПРОМИСЛОВИМ ПІДПРИЄМСТВОМ

Галина Романівна Кісь

Івано-Франківський національний технічний університет нафти і газу  
76019, вул. Карпатська, 15, м. Івано-Франківськ, Україна

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**Анотація.** Електронна комерція, яка охоплює всі види торгівлі через Інтернет, стала перспективною сферою сучасного інтерактивного бізнесу в умовах високої конкуренції. Використання моделей електронної комерції B2B та B2C є надзвичайно важливим для безкризового розвитку суб'єктів господарювання. Метою дослідження є довести необхідність організаційних, виробничих та управлінських інновацій, що передбачають впровадження та використання моделей електронної комерції B2C та B2B, а також визначити основні джерела фінансування таких інновацій на підприємствах, що перебувають у кризовому стані. Для дослідження специфіки застосування моделей електронної комерції B2C та B2B як важливого напрямку антикризового управління промисловим підприємством, було реалізовано такі методи і прийоми наукового дослідження, як системний підхід, аналіз та синтез, індукція та дедукція. Також застосовано такий процес управлінської діяльності, як прийняття управлінських рішень. Дослідження доводить, що розробка процесів управління, впровадження та використання моделей електронної комерції B2B та B2C може розглядатися як складова частина управління бізнесом при загрозі банкрутства. На практиці неплатоспроможні підприємства мають дуже обмежені можливості для впровадження моделей електронної комерції B2B та B2C, тому в такій ситуації дуже важливо визначити пріоритети та знайти власні резерви. Пріоритет внутрішніх джерел фінансування діяльності у сфері електронної комерції підприємств, що перебувають у кризовому стані, зумовлений таким: внутрішні джерела можуть бути мобілізовані за короткий час і, як правило, не вимагають значних капітальних витрат; мобілізація внутрішніх джерел зменшує залежність компанії від зовнішніх кредиторів, партнерів і контрагентів. Основним способом виявлення внутрішніх джерел фінансування проектів розробки, впровадження та використання моделей електронної комерції B2B та B2C є збір інформації про організацію, результати її діяльності, фінансовий стан і тенденції, аналіз фінансових показників. Розвиток світової економіки показує, що ті фірми, які не приділяють належної уваги електронній комерції, не мають шансу надовго утриматися на ринку. Розвиток моделей електронної комерції спричинює зміну структури економіки. Ефективна розробка, впровадження та використання моделей електронної комерції B2B та B2C визначає здатність компанії швидко адаптуватися до змінних зовнішніх умов і залишатися на ринку якомога довше

**Ключові слова:** антикризове управління, електронна комерція, модель електронної комерції B2B, модель електронної комерції B2C

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### INTRODUCTION

The implementation of economic reforms in Ukraine did not yield the expected structural changes in the economy. On the contrary, unsuccessful reforms have led to such structural deformations that are unacceptable for a country

trying to ensure sustainable and long-term economic growth. This is especially true for industry, the structure of which reflects the industry of the state, which becomes a raw material appendage of economically developed countries. The share of industrial enterprises' production in the total

volume of production since independence has significantly decreased [1-3]. At the same time, the industry manufactures products with high added value and products of investment purpose which has a key role in the strategy of ensuring economic growth. The industry largely determines the innovative nature of the country's economy, as its products have a decisive influence on products' level of competitiveness of many other industries in the Ukrainian and world markets [2].

The activity of industrial enterprises is of paramount importance for the state economy also for the reason that the solution of many social problems depends on its successful development. All of the above, taking into account the fact that industrial enterprises are complex and multifaceted objects of management that must solve important economic and socio-political problems of society [4], determines the priority of industry in solving problems using B2B and B2C e-commerce models for crisis-free development of business entities.

In modern conditions, e-commerce includes a wide range of interactive types of Internet commerce. For this reason, both foreign and domestic companies, carrying out their commercial activities in a highly competitive environment, consider e-commerce not only as extremely promising, but also a necessary component of doing business. Given this, and taking into account the fact that consumers are increasingly using online tools to find and purchase goods and services, Ukrainian industrial enterprises are increasing the use of a number of e-commerce models in their practice [4, p. 17-28]. E-commerce in all its variety of types necessarily uses Web-technologies, i.e. a set of Internet tools and the WorldWideWeb service in the field of business.

A wide range of issues related to various aspects of anti-crisis management industry and business is reflected in the works of Ukrainian and foreign scientists [5-7]. A significant number of scientists and practitioners have analysed the prospects and possible problems of separate application of e-commerce models at the industrial enterprises [8-10]. At the same time, the use of B2B and B2C models of e-commerce as one of the areas of industrial enterprises' anti-crisis management has not found much coverage in the scientific economic literature.

This paper focuses on the problems of using B2B and B2C models of e-commerce as one of the

areas of management in enterprises in crisis. The purpose of projects related to the introduction and use of e-commerce in such enterprises is the need to overcome the internal causes of the financial crisis, ensure sustainable crisis-free development, competitiveness, and profitability in the long run, improving the position of enterprises in the Ukrainian and foreign markets.

The *aim* of this study is to prove the need in organisational, production, and management innovations that involve the introduction and the use of B2C and B2B e-commerce models, as well as to identify the main sources of funding for such innovations in enterprises in crisis.

## METHODOLOGY

To study the specifics of the use of B2C and B2B e-commerce models as an important area of anti-crisis management of industrial enterprises, a systems approach, analysis and synthesis, induction and deduction were implemented. The use of these methods in the study of features and trends in the use of B2C and B2B models allows establishing the feasibility of their use in enterprises in need of remediation measures.

The comparative analysis was used to determine elements of the management system that are common to the implementation of B2C and B2B models of e-commerce and analysis in the event of bankruptcy of an industrial enterprise. The graphic method was applied when building a scheme of the standard plan of long-term restructuring of the enterprise.

Analysis and synthesis were also applied to determine the benefits and features of the use of e-commerce, which can lead to rapid positive changes in enterprises that require remediation measures. The comparison was used to compare retrospective data on the effectiveness of B2C and B2B e-commerce models. The process of managerial activity, such as making managerial decisions, was also applied. Methodological and informational basis of the study are scientific papers, materials from periodic publications, regulations and others.

## RESULTS AND DISCUSSION

Currently, most industrial enterprises are in crisis and require remediation. The main reasons for this situation are:

- 1) the loss of market shares due to global growth of competition in the market;

2) the general economic crisis, a decrease in investment activity within the country and reduced demand for investment goods;

3) lack of competition and protection mechanism for national producers;

4) high price of credit resources to replenish working capital;

5) low solvency of industrial products' consumers;

6) backward material and technical base;

7) low mobility of Ukrainian industrial producers;

8) non-competitiveness of the products of most industrial enterprises and the inability to solve this problem in a short time on their own due to lack of resources for re-equipment of enterprises;

9) inflexible and bureaucratic management structure;

10) low level of introduction of the newest methods of promotion and sale of production, including various elements of e-commerce [1-3].

If the first five factors are external in relation to the business entity and the possibility of enterprise's influence on them is very insignificant or absent, then the last six, which are internal, can and should be overcome. This can be done by applying measures of industrial-organisational, financial, and economic nature to enterprises. Among these measures, the main focus will be on the development, implementation and use of B2B and B2C e-commerce models.

The anti-crisis management plan of almost every enterprise threatened with bankruptcy should include its restructuring (financial and operational) and measures to improve management efficiency. When lenders agree to reorganise the company,

they are interested in both short-term measures to restructure the company (harm reduction programmes, separation and closing or selling unprofitable divisions or facilities of an enterprise, including social facilities) and medium- and long-term restructuring plans [5-6].

These plans should include, above all, ways to increase the enterprise's competitiveness in the market, that is, their ability to manufacture and offer to consumers such goods and services, with "price" and "non-price" characteristics of which together are more attractive to consumers than the goods of competitors [7]. Thus, to ensure competitiveness, the company in modern conditions is forced to design and manufacture new products, implement new production methods, develop new markets, obtain new sources of raw materials, reorganise, conduct e-commerce, including developing, implementing and using various e-commerce models.

The use of various forms of e-commerce is often seen as the prerogative of advanced businesses and organisations. And business leaders sometimes do not understand the need to implement e-commerce projects, believing that when there is a threat of bankruptcy, the company should focus on more pressing issues and not spend money on projects with dubious returns. However, in this situation, the use of B2B and B2C models of e-commerce is almost the only way for the survival of enterprise; an alternative to it is liquidation in the near or distant future. For this reason, the typical plan for the long-term restructuring of an enterprise should include all stages of development and implementation of e-commerce models, including B2B and B2C models (figure 1).

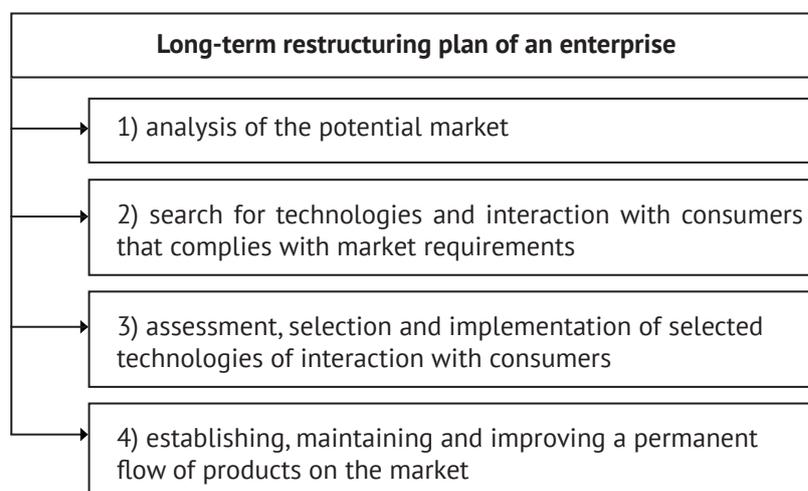


Figure 1. Stages (units) of a typical long-term restructuring plan of the enterprise

Source: [10]

E-commerce is the field of digital economy, which includes all financial and trade transactions carried out through computer networks, as well as business processes related to these transactions. E-commerce includes electronic data interchange (EDI), electronic capital transfer (ECT), electronic commerce (E-Trade), electronic money (E-Cash), electronic marketing (E-Marketing), electronic banking (E-Banking), electronic insurance services (E-Insurance) [8; 10].

B2B and B2C are the most important types of e-commerce in terms of financial turnover of industrial enterprises. B2B is the undisputed leader in this pair of e-commerce, as industrial enterprises interact primarily with industrial consumers of their products, and this type of e-business involves the establishment of commercial links between enterprises. More than three quarters of the total turnover of e-commerce belongs to this type, moreover, according to experts, in the near future the rate of growth of B2B, although insignificantly, but it will outstrip B2C. Many of the largest modern corporations, including IBM, Exxon Mobile, Dell, Magento, Hewlett Packard, Microsoft, Admixer, Cisco, focus on B2B e-commerce [8].

B2C e-commerce is the second most important and profitable type of e-commerce, although historically it was the first [9-10]. B2C involves the establishment of links between the company and non-industrial customers, which are usually the end users of its products (goods or services).

This type of e-commerce, firstly, involves the receipt and analysis of information by customers about the supplier or manufacturer, and by the industry itself about its customers. It is worth noting that for the company data on consumer requests, time spent on the site, customer feedback on various trading platforms about the products of the company or its competitors can have great importance on a highly competitive market.

Secondly, B2C involves the establishment of commercial (trade) links between the company and consumers of its products, and these links can be both one-time and permanent.

Thirdly, the analysed type of e-commerce includes the delivery of goods to the consumer and possibly further after-sales consulting or service. World-famous companies such as Alphabet, Amazon, Apple, Drugstore, Wix, Zoom, Beyond, Webex, Nike effectively use the B2C model of e-commerce and this model has made the key to

its success on a global scale. These companies, like many others, are actively using such an important advantage of the analysed model of e-commerce, as the reduction of transaction costs (to search the information, to choose a product, to purchase it). It should be noted that in the case of the sale of information goods B2C model is so convenient and profitable for all market participants that today has practically replaced all other types of commerce [9].

In practice, insolvent enterprises have very limited opportunities to implement B2B and B2C e-commerce models, so in such a situation it is very important to set priorities and find their own reserves. The priority of internal sources of financing activities in the field of e-commerce of enterprises in crisis is also due to the following:

- internal sources can be mobilised in a short time and, as a rule, do not require significant capital expenses;
- mobilisation of internal sources reduces the company's dependence on external creditors, partners, counterparties.

“Methods of in-depth analysis of the financial and economic condition of insolvent enterprises and organisations” [11] used to assess the threat of bankruptcy, in particular suggests that anti-crisis manager when analysing industrial and economic activity (Section 4 of the methods [11] should consider the level of marketing and sales activities, the existing production technology and sales of products (goods, works, services).

Section 5 “Competitive environment and marketing” of the above methodology poses a number of other tasks for the turnaround managers of the enterprise related to innovation. Among them are the assessment and forecasting of consumer demand for products, assessment of product recognition and competitiveness, meeting consumer needs for product quality, development and introduction of new products in a short time, accelerating the growth of innovation and manufacturability of products [11].

So, the management of development, implementation and use of B2B and B2C e-commerce models can be considered an integral part of business management under the threat of bankruptcy. The main way to identify internal sources of funding for projects of B2B and B2C e-commerce models is to collect information about the organisation, its operating results, financial condition and trends, analysis of financial

indicators. To identify internal reserves, which the company can use to restore solvency, liquidity, profitability, and competitiveness, it is necessary to analyse the internal structure of the company according to the next points [5]:

- 1) production analysis;
- 2) analysis of distribution and marketing of products;
- 3) analysis of the organisational structure and management;
- 4) marketing analysis;
- 5) financial analysis.

Production analysis involves assessing the volume, structure and rate of production; assortment, degree of renewal, breadth and depth of product range; availability of raw materials, level of stocks and speed of their use; the available equipment and the level of its use; the environmental friendliness of production.

Estimation of distribution and sale of production of the enterprise provides the analysis in the following directions: logistic issues related to the delivery of products to consumers; sales of products for individual products, sales areas, value, types of buyers, intermediaries and sales channels. It should be noted that for the successful implementation of procedures for the development, implementation and use of B2B and B2C e-commerce models, full and high-quality implementation of this section of enterprise's analysis has the key importance in the anti-crisis management system.

Analysis of the organisational structure and management includes an assessment of the level of management organisation at the enterprise, the presence and level of corporate culture and others. Marketing analysis includes market research, product research, sales channels; sales promotion and advertising, pricing; innovation; communication links and information; marketing budget and its implementation; marketing plans and programmes. Assessment of finances involves the analysis of financial stability and solvency; profitability (by goods, regions, sales channels, intermediaries); distribution channels; own and borrowed funds and their ratio [5-6].

When planning and implementing anti-crisis measures (especially if the measures include the development, implementation and use of B2B and B2C e-commerce models) it is very important how anti-crisis manager, in particular, reorganisation manager (especially if this person

is the head of the company) is ready for an innovative reorientation of the enterprise [12]. First, a "mental" adjustment must be carried out to realise that the enterprise is a mechanism with a variable configuration for the supply of goods and services depending on customer demand. The mechanism of activity must have a variable structure, as it is parameterised by the market. The enterprise supplies an "approximation" because market demand is complex, variable, and changing. "Approximations" are sufficient because competition is relative and perfection is generally impossible to achieve. Thus, the role of leadership changes dramatically in terms of scale and complexity. Management will need new sources of information, information systems, mechanisms for transforming a static organisation into a system with a variable configuration [13]. Restructuring of management and resumption of enterprises are similar to the process of recovery of the patient. And one of the main factors that cause this recovery is managerial innovation in e-commerce. This type of innovation involves the introduction of new models of e-commerce, as well as new methods of work used by management (systems of strategic planning and management, process modelling methods, personnel management methods) [14].

## CONCLUSIONS

Development, implementation and use of B2B and B2C e-commerce models in enterprises restructuring as part of crisis management is extremely challenging and equally important. It lays the foundations for the development of a completely new structure based on new principles and with new goals, with existing or new management and employees, but in a changed business environment.

The development of the global economy shows that those enterprises that do not pay proper attention to e-commerce have no chance of staying on the market for a long time. The development of e-commerce models causes a change in the structure of the economy (the gradual demise of obsolete energy-intensive industries and the emergence of new resource-saving ones). At the same time, the economic organisation of society changes, new economic structures appear the structure and realisation of various forms of ownership change, new management technologies develop, state regulation of the economy changes and so on.

Effective development, implementation and use of B2B and B2C e-commerce models in combination with such factors as progressive views and foresight of the company's management, size of the enterprise and others determine the company's ability to quickly adapt to changing external conditions and stay on the market as long as possible time.

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