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BUSINESS MODELS FOR ENTERPRISES IN THE CONDITIONS OF THE DIGITAL ECONOMY

ABSTRACT

The article substantiates the influence of digitalization, which affects the development of socio-economic relations. The trends that arose as a result of the development of digitalization and contribute to the gradual transformation of socio-economic relations and the economic base was identified. Digitization as a factor influencing the change of the economic base was substantiated. The economic basis of business models in the conditions of digitalization is considered. The most widespread business models of the modern type in the conditions of digitalization of the economy was characterized. An analysis of the evolution of scientific opinion regarding the transformation of business models from traditional to digital ones was made. It is proven that the business models used in the digital economy are client-oriented, which proves their purely marketing nature. The influence of "Industry 4.0" technologies on the evolution of approaches to the definition and formation of business models was substantiated.

KEYWORDS

business models, digital economy, enterprises.

INTRODUCTION

At the present time, there is a transition from traditional business models to innovative ones that are used in the conditions of the digital economy. Classical approaches to business planning in the conditions of digitalization of society and introduction of information and communication technologies cease to be in demand in practice. There is a need for modern business models that meet the conditions of development of the digital society and economy. The innovation approaches to conducting business contribute to the introduction of business models of consumer value, such as NABC (Need, Approach, Benefits and Competition), Value Propositional, Business Canvas Model and their combinations, which enhances their effect. These trends in the

development of approaches to the formation of business models are caused by the influence of the fourth technological revolution and the change in the foundations of doing business, which are focused not only on the promotion of value for the consumer, but also on the combined consumption of products and services. This is the so-called „sharing economy" or „economy of shared consumption", which exclusively uses digital platforms to create business models.

The main directions of the fourth technological revolution «Industry 4.0», which influenced the development of the «combined consumption economy», are the following:

The first direction is characterized by the wide use of information technologies, which will ensure the processing and formation of a large amount of information in the form of databases (Big Data and Analytics). Among the current tasks of this direction is the development of software tools for the implementation of the intelligent data analysis procedure (Data Mining).

The second direction is the use of technical achievements in the creation of autonomous technical complexes based on the introduction of cyber-physical systems (Autonomous Robots), which will be able to independently perform technological tasks without human intervention. According to forecasts by PricewaterhouseCoopers and the University of Oxford, by 2030 more than 30% of jobs will be occupied by robots, the World Economic Forum in its report The Future of Jobs says that by 2020 robots will occupy more than five million jobs [6].

The third direction is based on the use of the latest simulation systems of technological processes (Simulation), which will be actively used simultaneously with the production process. It is assumed that such systems will be able to simulate the processes of readjustment, testing and monitoring of packaging complexes or individual packaging equipment. That is, the real production will have an identical virtual model, which will be closely connected thanks to the parallel arrival of information in real time, fully corresponding to each other. This will ensure that changes in production can be made quickly, which can be pre-simulated and optimized on a virtual model, and then transferred to the real world of production. This approach will significantly save time and money and improve the quality of innovative solutions, because „in the virtual world" the consequence of unsuccessful technical solutions will be intangible losses.

The fourth direction of the development of Industry 4.0 is the integration of the connections of structural divisions of production in the horizontal and vertical directions of its functioning (Horizontal and Vertical System Integration). Currently, modern information and communication tools and information technologies already allow combining all its divisions within the framework of one enterprise into a single information space. In „Industry 4.0" the links of the chain „consumer - producer - supplier" are supposed to be combined into a single information space. The development and use of the industrial Internet will contribute to the realization of this goal. Such an information system will allow receiving the necessary information within a short time, regardless of the level of the consumer.

The above-mentioned directions contribute to a change in the business paradigm and the transformation of business models in the conditions of the digital economy, which is the result of the development of „Industry 4.0".

The aim of the study is a generalization of the evolution of scientific opinion regarding the justification of business models in the conditions of the digital economy and the applied aspects of their application.ю

The methodological base of the research consists of the author's developments of scientists who made a significant contribution to the justification of methodological approaches to the formation of business models. The scientists who made a significant contribution to the justification of approaches to the formation of business models include the following: Shafer S. [19], Osterwalder A. [15], I. Pignier [15], Slywotsky A [21].

Osterwalder A. [15, 16], P. Timmers [24] presented to the world their understanding of business models, detailed their elements and developed areas of implementation. A more detailed analysis of the scientific contribution of these scientists will be provided in the results of this study.

It should be noted M. Chaikovska among the Ukrainian scientists who have significant scientific results in this direction of research [4]. Chaikovska M. researches marketing business models that have a client-oriented approach and are based on the modelling of marketing business processes and the management of informatization projects [4]. She demonstrates an original author's approach, which is based on the use of the latest business models of creating value for consumers and obtaining profits from the products and goods of the supplier based on the involvement of customers at any point of interaction. The author believes that this requires the use of modern information technologies, both when modelling marketing business processes and when managing informatization projects in order to increase the effectiveness of their implementation.

Thus, in the conditions of the development of the digital economy, the determining approach to the creation of business models is customer or consumer orientation. Which has a marketing nature in its economic essence. Therefore, the hypothesis of our research is to identify factors that influence the evolution of approaches to the formation of business models of an enterprise in the digital economy and to prove their dependence on changes in marketing management concepts. The question of whether the transformation and development of marketing management concepts, as the basis of interaction with consumers, depends on approaches to the formation of business models in the conditions of the development of the digital economy and the influence of «Industry 4.0» technologies.

Result of the study.
In the conditions of the development of digitalization, business approaches to the formation of enterprise business models are changing. Digital technologies have contributed to the transformation of traditional approaches to building business models. In order to study the evolution of the development of scientific opinion regarding approaches to the formation of business models, an analysis of the interpretation of the term «business model» was carried out. In the future, this will provide an opportunity to identify changes in approaches and elements of business models in the conditions of the digital economy

The concept of «business model» was formed at the end of the 20th century and, in the generally accepted sense, was used to characterize a wide range of informal and formal key aspects of business. The construction of business models involved the substantiation of the following components of its elements, namely: purpose, potential

customers, offer, strategy, infrastructure, organizational structure, trade practice, management processes, etc. In a broad sense, a business model is a structurally constructed system, the purpose of which is the implementation of commercial and marketing opportunities.

The analysis of research conducted in this area allowed us to conclude that the substantiation of business models used in the digital economy began to take place in the early 2000s. The emergence of Internet technologies and the development of electronic commerce created conditions for changing traditional business processes. Scientific substantiation of business models in this direction was carried out by many scientists-founders of this field. Since the second half of the 2000s, research has been introduced that is devoted to the creation of classifications of business models of firms and the subsequent comparison of differences in the revenues generated, depending on the chosen type of business model.

It should be noted the scientific works of the following scientists, who researched and substantiated the evolution of approaches to the formation of business models in the conditions of digitization and informatization of the economy.

Timmers P. considers the business model as a set of products, services and information flows [24]. Weill P. and Vitale M. similarly describe the business model and consider it as the distribution of roles and relationships between consumers, customers, partners and suppliers [26]. Linder D. and Cantrell S. single out three types of business models as the basic logic of the organization in value creation [11]. The similar approach is presented in the works of Petrovic O. and Kittl K. [17] and Applegate L. [13, where a business model is defined as a description of a complex business system, its structure and interaction with the external environment while promoting value.

The study by Tapscott D. and Ticoll D. does not give a clear interpretation of the definition of a business model, but there is a mention of business networks in which the network is used for primary business communications and transactions [23]. The approach aimed at creating business networks was also presented in the scientific works of Amit R. and Zott K. [1].

In the scientific approaches to the justification of business models, which were developed and proposed by Afua A. and Tucci K., there is a focus on Internet models based on the use of information and communication technologies. Scientists determine that each company that uses the Internet in its work must have an Internet business model [2].

There are studies that take into account the financial component in their concepts. For example, Hawkins R. defines a business model as a commercial dependence between an enterprise and goods or services sold on the market [9].

Rappa M. in his research says that the business model should describe the process of making a profit by the company, clarifying its place in the chain of value creation [18]. Orienting business models to create and promote value becomes a key approach.

In this context, the scientific approach of Osterwalder O. and Pigneur Y. deserves special attention, in which it is shown that the business model describes the process of creating and realizing value [16]. The concept describes business models as nine building blocks that show the logic of how a company generates gross revenue. These

nine blocks are grouped into four business areas: customers, offering (good or service), required infrastructure, and financial viability. In other words, a business model is a plan of how the company's strategy should be implemented within its internal structures, processes and systems [16].

The conducted analysis allows us to substantiate the following stages of the evolution of the concept of the business model of the firm: emergence, formation and operationalization (Table 1.).

Table 1. Stages of evolution of business models

Stage	Period	Characteristic
The stage of emergence of the business model concept	1995-2000	The first definitions of the concept of a firm's business model appear, as well as works devoted to the analysis of business models of firms engaged in electronic commerce [21,12,22]. Research on the e-commerce market has contributed to the understanding of the business model as a characteristic way of generating income
Stage of development of the business model concept	2000-2005	There is an expansion of such a narrow view of this term. The possibilities of using the business model as a tool for analysing companies in any industry are revealed. This leads to a rapid increase in the number of publications that use the business model to investigate specific firms. In turn, the number of works was reflected in the emergence of a variety of approaches to the definition, analysis and selection of components of the company's business model [1,5,27,15,20,]
The stage of operationalization of the business model concept	2005 - to the present time	The focus of research is shifting to the development of specific characteristics of business models of firms, suitable for creating classifications and identifying specific types of business models [1,27,13,14] This made it possible to compare the results of companies with different business models and to use the selected characteristics of the business model to interpret the differences in the revenues generated by the firm [1,13]. Thus, within the selected stages of the evolution of the concept of the firm's business model, the understanding of the business model changed, which led to the existence of a variety of approaches to the definition and selection of structural elements of the firm's business model.

Analysis of the majority of interpretations of the concept of a business model, which are devoted to the research of modern scientists [21, 12, 22, 1, 24, 17], allows you to divide them into two groups that reflect the changes that have taken place in the understanding of the concept of «business model». The first approach considers the business model as a tool for generating income, the second approach is focused on value creation (Fig. 1).

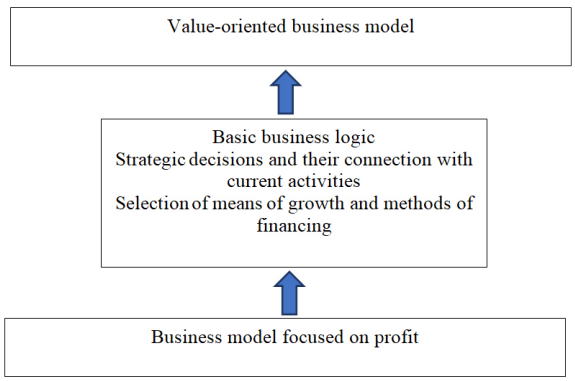

Figure 1. Approaches to the interpretation of «business models»

The first approach to defining business models substantiates the ways of obtaining profit, the second approach has a broader meaning and is focused on the creation and promotion of value. When implementing the second approach, social responsibility and the company's orientation towards compliance with ethical standards can be used. Thus, the second approach solves not only the issue of profit, but also reflects the value proposition and social responsibility of the enterprise.

In this context [21] also notes that the main aspects of the enterprise's business models should be the sources of creating and obtaining a value proposition within the framework of which there is strategic control over business tools.

Chesbrough G. and Rosenbloom R. single out another point that is necessary for building a business model - this is the creation of the foundations of sustainability of competitive advantages [5]. Based on these approaches. Chesbrough G. notes: «Any business model performs two important functions: it creates value and receives part of that value. It creates value through a series of activities, from those related to raw materials to those in which the company interacts with the end user who receives a new product or service. During the chain of various types of activities (during the creation of a product or service), new value is added» [5].

In addition, Chesbrough G emphasizes that the business model should determine how the company receives part of this value. For this, unique resources, assets or positions are used, with the help of which or on which the specified types of activities are performed, where the enterprise has a competitive advantage [5].

The most foreign researchers follow a value approach when building business models and consider an enterprise successful if its business model is unique and innovative.

The company's unique business model realizes innovative opportunities for creating or assigning value on the market. That is, opportunities that other companies in this industry do not have and allow the enterprise to have a competitive advantage.

Another approach to the analysis of business models allows you to divide business models into four blocks: value proposition for the consumer; sources of income generation; key resources; key processes [10] (Fig. 2). A number of business models, including Canvas, have been built according to this distribution.

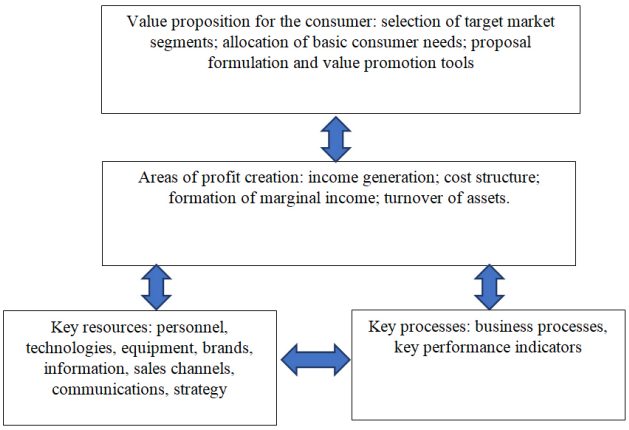

Figure 2. Elements of a business model according to the approach [10]

The approach proposed by Johnson, Christensen, Kagermann is a process approach and involves the creation and promotion of value by identifying the key processes and resources of the enterprise [10].

In general, the entire business process management system is aimed at creating value for the consumer. Within the framework of the system, it is assumed that the goals of the organization are achieved through conscious management of business processes. Regardless of whether the organization is commercial, non-commercial or governmental, its main purpose is to create products and services that have value for the consumer. That is why all goals of the organization should be reduced to achieving a high level of value.

In MBA programs, it is common to state that the main purpose of a commercial organization is profit from investors' investments. However, this goal may not be achieved if the products and services offered by the company do not have value for consumers. Thus, the primary goal of any enterprise - creating value for consumers in the form of providing products or services, is transformed into value for investors.

The simple definition of a business process is a set of actions that transform one or more inputs into a specific result that has value for the consumer. This approach justifies that the goals of the organization can be achieved through purposeful management of business processes.

To understand the essence of the business model, an approach can be given [19], which includes four independent but related components of the business model:

- types of activities: main and auxiliary;
- business units in which areas of activity are disclosed (these units can be internal divisions of the enterprise and external counterparties);
- relationships entered into by business units in the course of their activities;
- mechanisms of management and control of the effectiveness of the functioning of the business unit and the relations between them.

It can be concluded that the business model has a dual nature, which covers activities, on the one hand, and relationships, which are entered into by participants of certain activities, on the other hand.

The significant number of works investigating business models are an analysis of the operation of the enterprise in a static state. Only in the research of Teece D. J. [25] attention is paid to the dynamic aspect of business model analysis, which involves the continuous identification of new opportunities and their implementation through the creation of a new business model. As a rule, most large successful companies traditionally use one business model, adjusting tactics and strategy. Radical change or partial modification of the existing business model is associated with innovations, and with the so-called disruptive innovations that completely change the structure of the market [10].

An interesting example of a change in business models was the transition of many companies to the ideology of open innovation, according to which enterprises can and should use both internal and external ideas in innovative activities, as well as apply «internal» and «external» ways of entering the market with innovative technologies. «This business model uses both external and internal ideas to create value; at the same

time, there are internal mechanisms in the overall design that allow the company to obtain part of this value» [5].

The analysis of approaches to the interpretation of business models allows us to determine that the only common feature for the majority is the creation of value that the consumer is ready to pay. Value is generated in specific geographic and product markets, target segments, consumers, and its measurement is based on a comparison of the amount of revenue received and the costs of creating value [22, 12, 5, 14].

In this aspect, considerable attention is paid to the value creation chain [12], the distribution of operations between partners, as well as the description of company resources and assets necessary for value creation [12]. This approach to the analysis of business models provides an understanding of business architecture, reveals value creation processes, but reflects the firm's work only in a static state. This contributed to the emergence of dynamic business models aimed at finding and implementing new opportunities.

Thus, the analysis of business model concepts existing in the literature allows us to distinguish the following three approaches to the definition and analysis of business models:

- assignment of value through its creation and promotion with the help of diversification strategies. This approach involves the generation of income in new industries or activities (sales through the Internet, Internet advertising, etc.) [12];
- a process approach that involves the creation of value through business processes that occur at the enterprise [12, 20].
- creation of dynamic business models, which involves the company's constant search for new opportunities, both within existing business models and their modifications [25].

Noting the importance of all scientific approaches and confirmed in practice, the effectiveness of the implementation of traditional business models, the development of the digital economy contributed to the transformation of traditional views on these aspects.

Let's consider the main reasons and consequences of the impact of digitalization on socio-economic processes and their reflection on modern approaches to building business models.

The impact of digitalization is reflected in the development of socio-economic relations in the following directions:

- creation of a „smart" society based on new values, orientation to human needs, flexibility and creativity;
- a radical change in the labour market, health care system, education and spatial development;
- the disappearance of a number of traditional professions due to the automation of relevant labour operations and the simultaneous appearance of new professions;
- growing demand for creative work, creativity and creative technologies;
- the transfer to the digital economy of a significant part of labour relations and entire segments of employment, the flexibility of which forms is significantly increased due to an increase in the share of non-standard, partial and unstable, one-time employment, etc.;

- digitalization requires the formation of new competencies of the labour market, which affects the restructuring of the entire education system;
- growing influence of young workers, representatives of generation Z, who use digital technologies almost from birth (digital natives) and have unlimited access to information and developed digital competencies.

The key motivating factor in the digital economy is the possibility of personal development, not just career growth and higher pay.

Another significant feature of the formation of a digital society is the development of mass online education due to the appearance of high-quality mass open online courses and the opening of general access to educational courses of the world's leading universities. This leads to the publication of a large amount of information in open sources and the loss of universities' monopoly on the transfer of knowledge.

Digitization of education also brings a number of difficulties, requiring the solution of the issues of adaptation of the educational system to the digital environment, working out the ethical aspects of the use of digital technologies in the future.

The volume of data, which is growing significantly and exceeds the human ability to assimilate it, determines the demand for artificial intelligence (AI) technologies and electronic assistants. Increasing the speed of information exchange and its application requires increasing the information literacy of the population, which contributes to the emergence of digital inequality and the risks of digital segregation of consumers of digital services.

The spread of the Internet of Things will make a person practically transparent to any interested persons and structures, which, in turn, creates a demand for the development of information protection technologies and cybercrime technologies.

All of these trends, which have arisen as a result of the development of digitalization, contribute to the gradual transformation of socio-economic relations and change the economic basis.

As a result of such transformations, digitalization can be defined as a factor affecting the change of the economic base. Such an approach should be justified by the following provisions:

- the development of the digital economy challenges the traditional principles of national or regional economic systems. In the conditions of erasing the borders of national economies, the question arises of real processes of creation and distribution of value in the digital economy;
- in the digital economy, there is a change in the factors of value formation and the transformation of the law of value due to the appearance of new factors of production;
- the digital economy is characterized by reliance on intangible assets, massive use of data, implementation of non-standard business models and difficulties in determining the jurisdiction in which value creation takes place.

The substantiation of the features of the digital economy allows us to conclude that the main transformations take place precisely because of the law of value, in terms of the emergence of new factors of value formation and real processes of its distribution.

These transformations affect the formation of business models used in the digital economy.

The economic basis of business models in conditions of digitalization should be based on taking into account the following trends:

- Technologies of big data analysis and artificial intelligence help to find new sources of value creation based on the study of digital portraits of consumers and patterns of their economic behaviour. Customer data is becoming a core asset of digital companies, and access to large volumes increases market value.
- The main parameter of the competitiveness of new business models is the speed of bringing a new product to the market (timeto-market). Modern approaches to development and production based on advanced production technologies allow to reduce time to market and use an iterative approach to updates and improvements, adapting to customer needs.
- The predominance of intangible assets in digital business models and the ease of transition of consumers from one company to another increase the significance of the brand and dictate the need to create incentives for the use of a certain digital platform or business model, increase loyalty through the provision of individual or extended services.
- Value chains allow you not to limit business to certain geographic regions and market segments, most digital platforms operate in many markets. The development of digital platforms also allows for the expansion of value propositions for the consumer through partnerships with other suppliers.
- The formation of a „sharing-type" economy or an economy of joint consumption.
- All of the above-mentioned trends contributed to the emergence of new types of business models inherent in the digital economy. The most common business models of the modern type in the conditions of the digital economy are the following:
- Digital platforms that provide direct interaction between sellers, buyers and supplier partners, which allows to minimize transaction costs and expand opportunities for joint consumption of goods and services. Depending on the product and market segment, platforms can be communication, social, media, search, operational and managed, service, sharing, product, transaction, etc.
- Service business models that are service-based and based on using resources instead of owning them (including Software as a Service (SaaS), Infrastructure as a Service (IaaS), etc.). New types of service models are emerging today, including Robots-as-a-Service, City-as-a-Service. Service models contribute to the personalization of goods and services, allowing the client to consume the necessary product in the necessary volumes to achieve the desired result.
- Models based on results. These are business models in which pricing is based on achieving results and effects for the client, including on the basis of consumption of complex products and services. By analogy with service models, such business models are often called Product-as-a-Service (PaaS). For example, BASF's business model, which is focused on the supply of fertilizers, nevertheless provides customers with detailed recommendations on which fertilizers to use, in what quantities and on which plants in a certain period of time, based on the monitoring and analysis of data on soil, plant condition, weather conditions and other parameters [7].
- Crowdsourcing models based on attracting external resources (money, people, ideas, etc.) to implement business processes — innovation, product development, production, marketing and sales, etc.
- Business models based on monetization of customers' personal data, when free services for users sell their data to other consumer segments [8].

The level of spread of new business models in Ukraine differs significantly by economic sector: the most common digital platforms in markets characterized by close interaction between suppliers and consumers are retail trade, financial services, consumer goods and services, where platform solutions are actively developing. since the beginning of 2010.

The specifics of the formation of business models in the conditions of digitalization are formed under the influence of global factors, and its dependence on the level of development of the national economies of countries requires additional research.

However, technological solutions that contribute to changing the business model of enterprises from product-oriented to service or customer-oriented have the greatest potential for creating added value [6].

The fundamental differences of digital business models are presented in the table. 2.

Table 2. Basic differences of digital business models

Key parameters	**Digital business models**	
— direct interaction between sellers, buyers and supplier partners; — minimization of transaction costs; expanding opportunities for joint consumption of goods and services.	Digital platforms	Customer-oriented models
— based on using resources instead of owning them; — contribute to the personalization of goods and services; allow the client to consume the necessary product in the necessary volumes to achieve the desired result	Service business models	
— business models, the key aspect of which is the pricing approach; — the pricing strategy is based on the consumption of complex products and services.	Outcome-based models	
The possibility of attracting external resources (money, people, ideas, etc.) for the implementation of business processes with their optimal use.	Crowdsourcing models	
free services for users sell their data to other users or consumers	Business models based on monetization of personal data of customers	

The main feature of business models used in the digital economy is a customer-oriented approach, which allows you to optimize the company's activities and take into account the needs of customers in accordance with all key resources. All customer-oriented business models provide a marketing orientation of business. Customer-oriented models do not simply advance value and justify the key resources necessary for this, they involve constant interaction with the customers of the enterprise. This allows you to constantly adjust business processes and interact with all counterparties and customers in an interactive mode. Taking into account these aspects, we can conclude that it is through the use of client-oriented business models that the concept of marketing management - interaction marketing is realized. The digital economy has

contributed to the formation of a unique business environment that has contributed to the spread and development of the very concept of interaction marketing. Which provides for meeting the needs of consumers and business partners and the state in the process of interaction with them. Key aspects of this concept are provided by the development of biotechnology, nanotechnology, information and IT technology, optoelectronics, and the aerospace industry. In addition, the technologies of „Industry 4.0" are also beginning to be reflected in the further improvement of interaction with customers in business models through the development of neurotechnology, genetic engineering, artificial intelligence, unmanned vehicles, and implantable technologies. These technological changes contribute to the transformation of approaches to interaction with customers and counterparties within the framework of business models, thanks to neurotechnology's and the introduction of artificial intelligence. All these trends influence customer behaviour, making it completely manageable and under the control of business goals, and at the same time actualizing issues of social responsibility and business ethics.

Conclusions

The article analyses the evolution of scientific opinion regarding approaches to the formation of business models. The factors influencing the evolution of approaches to the formation of business models of an enterprise in the digital economy are identified. It has been proven that the business models used in the digital economy are client-oriented, which proves their purely marketing nature. The influence of „Industry 4.0" technologies on the evolution of approaches to the definition and formation of business models is substantiated.

REFERENCES

[1] Amit R ., Zott C . (2001) Value Creation in e-Business // Strategic Management Journal. Vol. 22. P. 493–520
[2] Afuah A., Tucci C . L. (2003) Internet Business Models and Strategies. Boston: McGraw Hill.
[3] Applegate L. M. (2001). E-business Models: Making sense of the Internet business landscape // Information Technology and the Future Enterprise: New Models for Managers / Ed.by L. M. Applegate, G. W. Dickson, G. DeSanctis. Upper Saddle River, NJ: Prentice Hall.
[4] Chaikovska M.P., Belenkaya E.P. Modern determinants and challenges of marketing management of the IT startup industry of Ukraine // Marketing and digital technologies, Volume 6, No. 3, 2022, p. 109- 123 DOI: 10.15276/mdt.6.3.2022.11
[5] Chesbrough H. W., Rosenbloom R. S. (2002) The Role of the Business Model in Capturing Value from Innovation: Evidence from Xerox Corporation's Technology Spin-off Companies // Industrial and Corporate Change. Vol. 11. P. 529–555.
[6] Cisco (2016). Where to Begin Your Journey to Digital Value in the Private Sector Economic Analysis. <*www.cisco.com/c/dam/en/us/ solutions/collateral/service-provider/value-at-stake.pdf*>
[7] Gartner (2018b). Gartner Top 10 Strategic Technology Trends for 2019. <*www.gartner.com/smarterwithgartner/gartner-top-10-strategic-technologytrendsfor-2019/*> .
[8] Global Education Futures Report (2018). Образование для сложного общества.< *www.drive.google.com/file/d/0B9ZvF6mQ5FMbSTFKVmhodU5rNTNiTXpUZ2QwZktiR0pzSmJR/view*>.
[9] Hawkins R. (2001) The "Business Model" as a Research Problem in Electronic Commerce // STAR IST Project. SPRU – Science and Technology Policy Research. № 4
[10] Johnson M., Christensen C.M., Kagermann H. (2008) Reinventing your business model // Harvard Business Review. Dec. P.50–59.
[11] Linder J., Cantrell S. (2000) Changing Business Models: Surveying the Landscape.

Accenture / Institute for Strategic Change. URL" *www.course.shufe.edu.cn/jpkc/zhanlue/upfiles/edit/201002/20100224120954.pdf*
[12] Mahadevan B. (2000) Business Models for Internet-Based e-Commerce // California Management Review. Vol. 42. URL: *www.iimb.ernet.in/~mahadev/bmodel.pdf*.
[13] Malone T. W., Weill P., Lai R. K. et al. (2006) Do Some Business Models Perform Better than Others? // MIT Sloan. WorkingPaper 4615-06.
[14] Morris M., Schindehutte M., Allen J. (2005) The Entrepreneur's Business-Model: Toward a Unified Perspective // Journal ofBusiness Research. Vol. 58. P. 726–735.
[15] Osterwalder A., Pigneur Y., Tucci C. (2005) Clarifying Business Models: Origins, Present, and Future of the Concept //Communications of the Association for Information Systems. Vol. 15. P. 1–25.
[16] Osterwalder A., Pigneur Y. (2009) Business Model Generation // Business Model Generation.com.
[17] Petrovic O., Kittl C. (2001) Developing Business Models for eBusiness // International Conference on Electronic Commerce 2001. Vienna.
[18] Rappa M. (2002) Managing the digital enterprise // Business models on the Web / North Carolina State University. URL: *www.digitalenterprise.org/models/models.html*.
[19] Santos J., Spector B., van der Heyden L. (2009) Toward a Theory of Business Model Innovation within Incumbent Firms // INSEAD working papers. INSEAD Working Paper Series INSEAD and Northeastern University. Fontainebleau.
[20] Shafer S., Smith H. J., Linder J. (2005) The Power of Business-Models // Business Horizons. Vol. 48. P. 199-207
[21] Slywotsky A. J. (1996) Value Migration. Boston, MA.: Harvard Business Review Press
[22] Stewart D.W., Zhao Q. (2000) Internet Marketing, Business Models, and Public Policy // Journal of Public Policy & Marketing.Vol. 19. P. 287–296
[23] Tapscott D., Ticoll D., Lowy A. (2000) Digital Capital — Harnessing the Power of Business Webs. Boston: Harvard Business School Press.
[24] Timmers P. (1998) Business Models for Electronic Markets // Journal on Electronic Markets. Vol. 8, N2. P. 3–8.
[25] Teece D. J. (2007) Explicating dynamic capabilities: The nature and microfoundations of sustainable development // Strategic Management Journal. Vol. 28. P. 1319–1350.
[26] Weill P., Vitale M. (2001) Place to space: Migrating to eBusiness Models. Boston, Harvard Business School Press.
[27] Zott C., Amit R. (2007) Business Model Design and the Performance of Entrepreneurial Firms // Organization Science. Vol. 18.

MODELE BIZNESOWE PRZEDSIĘBIORSTW W WARUNKACH GOSPODARKI CYFROWEJ

STRESZCZENIE

Artykuł uzasadnia wpływ cyfryzacji na rozwój stosunków społeczno-gospodarczych. Zidentyfikowano trendy, które powstały w wyniku rozwoju cyfryzacji i przyczyniają się do stopniowej transformacji stosunków społeczno-gospodarczych oraz bazy ekonomicznej. Uzasadniono cyfryzację, jako czynnik wpływający na zmianę bazy ekonomicznej. Rozważane są ekonomiczne podstawy modeli biznesowych, w warunkach cyfryzacji. Scharakteryzowano najbardziej rozpowszechnione modele biznesowe nowoczesnego typu, w warunkach cyfryzacji gospodarki. Dokonano analizy ewolucji opinii naukowej, dotyczącej transformacji modeli biznesowych, z tradycyjnych na cyfrowe. Udowodniono, że modele biznesowe stosowane w gospodarce cyfrowej są zorientowane na klienta, co świadczy o ich czysto marketingowym charakterze. Uzasadniony został wpływ technologii „Przemysłu 4.0" na ewolucję podejść do definiowania i kształtowania modeli biznesowych.

SŁOWA KLUCZOWE

modele biznesowe, gospodarka cyfrowa, przedsiębiorstwa.