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RESEARCH OF THE PRECONDITIONS OF FORMING A DIGITAL STRATEGY OF THE ENTERPRISE TO ENSURE ITS COMPETITIVENESS

Об'єктом дослідження є процеси формування цифрової стратегії підприємств з метою забезпечення конкурентоспроможності та розвитку цифрової економіки. Одним з найбільш проблемних місць є формування цифрової інфраструктури країни як передумови формування цифрової стратегії підприємств, що забезпечує отримання конкурентних переваг та додаткового економічного ефекту. Також потребують визначення складові цифрової стратегії підприємств, що ґрунтуються на сучасних розробках та досягненнях у сфері інформаційно-комунікаційних технологій.

В ході дослідження використовувалися методи аналізу визначення стану та складових розвитку цифрової економіки. А також порівняльний аналіз розвитку цифрових економік різних країн та основних факторів, які впливають на такий розвиток, та графічний аналіз розвитку складових цифрової економіки.

У роботі визначено проблеми формування цифрової стратегії підприємств, що мають соціально-економічне значення для забезпечення ефективного розвитку підприємств та економіки країни в цілому. Проаналізовано прийняті у різних країнах програми та стратегії розвитку і просування цифрових технологій, визначено напрями цифровізації національних економік та сфер діяльності. Висвітлено тенденції розвитку цифрової економіки України та стан розвитку інформаційно-комунікаційної інфраструктури підприємств.

Обґрунтовано визначальні фактори цифрової трансформації підприємств, такі як поширення використання інтернет-технологій, великих даних, штучного інтелекту, інтелектуальних додатків, блокчейну, цифрових технологічних платформ, адаптивної архітектури безпеки тощо. Показано існуючі проблеми та перспективи поширення застосовування підприємствами у своїй діяльності цифрових технологій на основі розроблених цифрових стратегій.

Визначені у роботі пропозиції щодо формування цифрової стратегії підприємств спрямовані на забезпечення цифрової трансформації підприємств та економіки в цілому.

Створення міцного інформаційного потенціалу підприємств на основі визначеної цифрової стратегії, як очікується, дозволить значно покращити їх конкурентоспроможність та економічну ефективність, що вплине на стан розвитку цифрової економіки в цілому.

Ключові слова: *розвиток цифрової економіки, цифрова стратегія, цифрове перетворення, конкурентоспроможність підприємства.*

1. Introduction

Information communication technology (ICT) continues to change the world. The emergence of the digital economy is the basic activities of the enterprise and its business strategy. Today, enterprises must transform themselves into changing operating conditions and the demands of consumer and market. ICT is the driver of the transformation of business, processes, products and services for the client.

The digital economy is determined by the existence of the digital industry (ICT as a branch of the economy); infrastructure; digitalization of business, industry; digital skills, competence and leadership, digital culture. Digitalization of enterprises is the main factor in the growth of the digital economy. Digital transformation of enterprises is carried out due to the expanded use of «cloud» computing, Big Data, new industrial applications, the creation of cyber system, «smart production», robotics, 3D printing.

Therefore, it is relevant to study the prospects for the development of the digital economy as a prerequisite for the implementation of digital transformation of enterprises

and the formation of a digital strategy for an enterprise to ensure its competitiveness.

2. The object of research and its technological audit

The object of research is the formation processes of the digital strategy of enterprises in order to ensure competitiveness and development of the digital economy.

The formation of the digital economy, actively using modern ICT achievements to improve the socio-economic state, is an urgent need for the effective development of countries, ensuring their global competitiveness. Bridging the «digital divide» in the development of the economies of countries, strengthening the introduction of ICT in all spheres of economic and social life, is expected to lead to an increase in the economic development of enterprises using such technologies in their activities. The increase in enterprises of their productivity and competitiveness today is based on the creation of ICT potential at enterprises and on the enhancement of its use. The company's

digital strategy is aimed at creating a solid potential for ICT to ensure an increase in the economic efficiency of the enterprise and its competitiveness.

The characteristic shortcomings hindering effective digital transformation (the spread of ICT use) of enterprises' activities is the slow use of ICT in enterprises and the uncertainty of its main components. As well as the lack of information about the advantages of the formation and implementation of a digital strategy, the state and prospects of development of the digital economy.

3. The aim and objectives of research

The aim of research is determination of the direction of the formation of a digital strategy for enterprises to ensure their competitiveness and the development of the digital economy. To achieve this aim it is necessary to perform the following objectives:

1. To determine the development trends of the digital economy and the main components; it is defined as prerequisites for the digital transformation of enterprises.
2. To analyze the main factors influencing the digital development and the formation of the digital strategy of enterprises.
3. To explore the modern conditions of the formation of the digital strategy of the enterprise and the advantages of ensuring the digital transformation of the enterprise.

4. Research of existing solutions of the problem

Among the main directions of solving the problem of the development of the digital economy in the resources identified in the world scientific periodicals can be highlighted [1, 2]. In these studies, attention is focused on determining the dependence of the digital economy on the efficiency of real production, the state of development of digital technologies and services, but they do not consider the criteria that determine the state of the results of digitalization of the economy.

The work [3] is devoted to the competitive advantages of the digital economy, the important role of information digitalization, but the issue of determining the results of such digitalization is not sufficiently defined.

The advantages of the development of the digital economy are noted in [4], which is described as an informational, innovative, industrial and service ecosystem. However, this work does not fully disclose what elements it consists of and what factors influence its development.

The authors of [5] show that with the development of the digital economy, the efficiency of enterprises from carrying out digital transformation increases and the GDP grows. But the question remains of determining the impact of the digital economy on the economic development of enterprises in the conditions of digitalization and internationalization.

The solution to the problem of digital transformation of enterprises, described in [6], provides for the coordination of functional (financial, marketing, personnel, organizational, innovation, information, etc.) and operational (product, process) strategies. However, there remain unresolved issues of alignment of information (or digital transformation strategies) with other strategies.

According to the authors of [7, 8], the digital strategy, where digital technologies have transformed processes,

manages the digital maturity of enterprises, helps attract talents and form new business models. Forming a Business intelligence analytics (BIA) digital strategy provides an opportunity to take into account the digital maturity of enterprises and aims to maximize the benefits provided by the strategy. But the models described in the works do not evaluate the influence of various factors on the effectiveness of the digital strategy of enterprises.

The content of digital transformation based on the introduction of digital strategies and the prospects for digital transformation of an enterprise are considered in [9, 10]. But the introduction of a digital strategy requires the definition and application of an assessment tool for the results of its implementation in order to achieve a successful digital transformation.

Thus, according to the results of the literary analysis, a conclusion is drawn that the problem requires further solution:

- identification of trends in the development of the digital economy;
- identification of the main factors affecting the digital development of the enterprise and the formation of the digital strategy of enterprises;
- determination of the benefits from the formation of a digital strategy and ensuring the digital transformation of the enterprise.

5. Methods of research

The following scientific methods are used:

- analysis method in the study of the components of the digital economy and society index;
- graphical method for determining the state of development of digital economies in 10 EU countries with the most developed economies;
- method of comparison when analyzing the main indicators of telecommunications development.

6. Research results

6.1. Global strategies for the digitization of national economies in the world. Digitization is «an economic activity caused by billions of everyday online connections between people, businesses, devices, data and processes. The basis of the digital economy is the hyperlink, which means the growing interconnection of people, organizations and machines that arise from the use of the Internet mobile technologies and the internet (IoT) [11]. At present, the digital economy is estimated at 12.9 trillion USD, or 17.1 % of global GDP. The outstanding performance of the digital economy in its current form is mainly related to the Internet-oriented consumer, that is to say, the Internet, as we know it at the present time. At present, the digital economy is based to a large extent on e-commerce, entertainment and online services. Although these sectors remain strong, growth has started to slow down, and the global economy has matured for a new wave of growth.

Today developed and implemented in dozens of different countries of the world, as well as at inter-governmental level, state programs and strategies for the development and promotion of digital technologies and digitization of national economies and industrial sectors. Thus, only in the countries of the European Union, according to official data of the European Commission in March 2017, there

are more than 30 national and regional industrial initiatives digitizations (in the digital market) [12]. At the national level, the following programs and initiatives are being implemented:

- Austria – Industrie 4.0 Oesterreich;
- Belgium – Made different – Factories of the future;
- Czech Republic – Průmysl 4.0;
- Germany – Industrie 4.0;
- Denmark – Manufacturing Academy of Denmark (MADE);
- Spain – Industria Conectada 4.0;
- France – Alliance for Industrie du Futur;
- Hungary – IPAR4.0 National Technology Initiative;
- Italy – Industria 4.0;
- Lithuania – Industry 4.0;
- Luxembourg – Digital For Industry Luxembourg;
- Netherlands – Smart Industry;
- Poland – Initiative and Platform Industry 4.0;
- Portugal – Indústria 4.0;
- Sweden – Smart Industry.

One of the pioneers of digitization and the main ideologue of the Industrie 4.0 concept is Germany, which in 2011 officially introduced a state strategy called Industrie 4.0. In addition to the general concept of Industry 4.0 in Germany, at the state level, several other strategies and initiatives of a similar form and orientation are developed and implemented, including Smart Networking Strategy, based on which, in turn, the Digital Agenda program was presented. The Alliance of the Future Industry was created, linking various organizations in the fields of private business, the scientific community and a number of government institutions and institutions in France, in July 2015.

The new digital strategy (UK Digital Strategy 2017) was officially published 2017 in the UK [13].

The Smart Industry Ambitious Program was adopted by the Government of the Netherlands. The national concept (strategy) «Internet+» (Internet Plus) was presented in the PRC [14]. This integrated strategy identifies several key areas for the further development of digital transformation, along with industry, agriculture, the financial sector and state institutions.

In Japan, the main government document defining the country's long-term goals and objectives in the area of digital transformation development is the Smart Japan ICT Strategy, which was officially published in June 2014 [15].

The main current state document in Korea's science and technology policy is the Third Basic Science and Technology Development Plan, which is being implemented from 2013 to 2017. It outlines a strategy for the accelerated development of so-called «13 future growth engines», with virtually all of these new industries and sectors being «subversive digital technologies» (smart cars, 5G networks, smart robotics, smart portable devices, etc.). In parallel, the special Manufacturing Innovation 3.0 Strategy, which focuses on the Internet, 3D printing technologies and BigData, is also being implemented [16].

In the United States, there is no single state program for the development of digital technologies, but in different years, in conjunction with private business and the scientific community, special technological initiatives have been launched. Examples include, for example, the federal cloud computing initiative (in 2009) or the initiative of President Barak Obama to create a new network of advanced manufacturing partnerships (AMP) in 2011 with

participation key federal ministries and major technology companies in the United States [17].

In addition, in March 2014, the Industrial Internet Consortium (IIC) was created on the initiative of a number of leading American private business representatives (primarily GE, AT & T, IBM, Intel and Cisco), whose main mission is the acceleration of development, industrial implementation and the widespread of machines, devices, and also intellectual analytics connected with each other, that is, the industrial Internet of things. Following the adoption of appropriate strategies for digital transformation, the following is recognized:

- the digital economy implies globalization;
- the digital economy is a super-competitive environment;
- the digital economy is developing at a rapid pace;
- the digital economy does not exist without skilled personnel and quality education;
- the digital economy kills many traditional areas of activity;
- the digital economy is a new quality of life, business and public services;
- the digital economy is largely virtual, elusive, but it is impossible without the connection with the material world.

Therefore, the basis of the digital economy is industrial development. EU countries in 2010, under the Europe 2020 strategy, the Digital Europe program were developed to stimulate the growth of the Pan-European Internet economy. The Digital Agenda for Europe was developed, which elaborated the common priorities of the EU member states for the development of digital sectors of the economy and the promotion of digital innovations in 2010. The European Commission published a program «Digital single Market – digitizing European industry», aimed at digitizing the European industry and service sector in 2016 [18].

To estimate the level of technological development in the countries of the European Union and the degree of introduction of innovative technologies in society and, in particular, the economy uses the DESI (The Digital Economy and Society Index). The index is calculated from 0 to 1. Human capitals, digital technology integration, digital public services, quality of communications and Internet use are evaluated.

The DESI has a three-layer structure as depicted in Table 1. It is composed of 5 principal dimensions, each divided into a set of sub-dimensions, which in turn are composed by individual indicators [19].

According to the DESI index, in 2017, Denmark, Finland, Sweden, the Netherlands, Luxembourg, Belgium, the United Kingdom, Ireland, Estonia, Austria are the leaders in the development of digital technologies among the countries of the European Union (Table 2).

For the top 10 EU-leaders in the development of the digital economy, the overall DESI index and its components are significantly higher than the average for the European Union. In addition, the top 10-leaders of the countries included mostly small EU countries. To this cluster did not include countries such as Germany, France, Italy, Spain, etc. As can be seen from Fig. 1, in 2017 the EU countries received the highest marks for the following components of the DESI index: communication (0.63), human capital (0.55) and distribution of digital public services (0.55).

However, it needs to improve the use of the Internet (0.48) and the integration of digital technologies into entrepreneurial activity (0.37).

Structure of the Digital Economy and Society Index

Table 1

DESI Structure	Dimension Sub-dimension	Indicator
1. Connectivity	a) Fixed Broadband	– Fixed Broadband Coverage; – Fixed Broadband Take-up
	b) Mobile Broadband	– 4G coverage; – Mobile Broadband Take-up
	c) Fast Broadband	– Fast Broadband Coverage; – Fast Broadband Take-up
	d) Ultrafast Broadband	– Ultrafast Broadband Coverage; – Ultrafast Broadband Take-up
	e) Broadband Price Index	– Broadband Price Index
2. Digital Skills	a) Basic Skills and Usage	– Internet Users; – At Least Basic Digital Skills
	b) Advanced skills and Development	– ICT Specialists; – STEM Graduates
3. Use of Internet	a) Content	– News; – Music, Videos and Games; – Video on Demand
	b) Communication	– Video Calls; – Social Networks
	c) Transactions	– Banking; – Shopping
4. Integration of Digital Technology	a) Business digitization	– Electronic Information Sharing; – RFID; – Social Media; – e-Invoices; – Cloud
	b) E-Commerce	– SMEs Selling Online; – e-Commerce Turnover; – Selling Online Cross-border
5. Digital Public Services	a) E-Government	– e-Government Users; – Pre-filled Forms; – Online Service Completion; – e-Government Services for Businesses; – Open Data
	b) E-Health	– e-Health Services

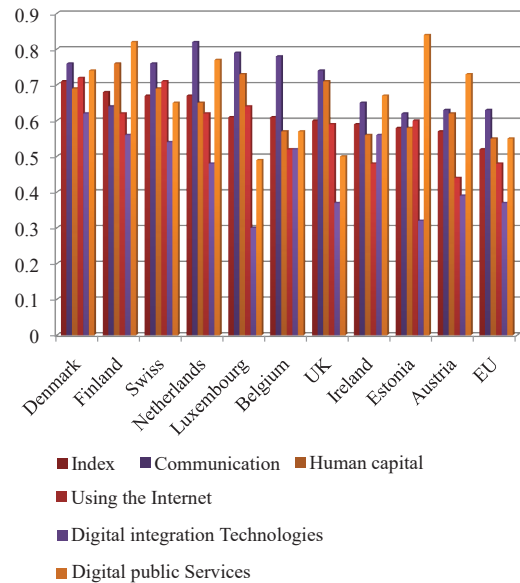


Fig. 1. 10 EU countries with the most advanced digital economies [20]

Due to the development of the digital economy, small and medium-sized businesses (SMEs) have previously been unavailable to become global. This is what determines the peculiarity of the third wave of globalization, its inclusiveness. This again proves the peculiarity of the new wave of globalization and the Fourth Industrial Revolution: small and medium-sized enterprises and small countries can be successful and competitive if they actively implement digital technologies and develop the digital economy.

6.2. Strategy of digital transformation of Ukraine.

The key goal of Ukraine's digitization is to achieve the digital transformation of existing and create new economic sectors, as well as transform Ukraine's spheres of life into new, more efficient and modern ones. Such an increase is only possible if ideas, actions, initiatives and programs relating to digitization are integrated into national, regional, sectoral strategies and development programs [21]. The key components that make up the «digital» economy, and accordingly, are in the focus of the «Digital Agenda of Ukraine – 2020»:

- «digital» industry, that is, the sphere of ICT as a branch of economy;
- «digital» infrastructure;
- «digitalization» of business, industry;
- «digital» skills, competences and leadership;
- «digital» culture, digitalization is aimed at accelerating the development of the information society in Ukraine, increasing productivity, economic growth, job creation, and improving the quality of life of Ukrainian citizens. Ukraine's digitalization should provide every citizen with equal access to the services, information and knowledge provided on the basis of information and communication technologies (ICTs).

10 EU countries with the most advanced digital economies [20]

Table 2

Country	Index	Communication	Human capital	Using the Internet	Digital integration Technologies	Digital public Services
Denmark	1	0.71	4	0.76	5	0.69
Finland	2	0.68	12	0.64	1	0.76
Swiss	3	0.67	5	0.76	4	0.69
Netherlands	4	0.67	1	0.82	6	0.65
Luxembourg	5	0.61	2	0.79	2	0.73
Belgium	6	0.61	3	0.78	11	0.57
UK	7	0.6	6	0.74	3	0.71
Ireland	8	0.59	11	0.65	12	0.56
Estonia	9	0.58	17	0.62	10	0.58
Austria	10	0.57	15	0.63	7	0.62
Average by group	–	0.63	–	0.72	–	0.66
EU	–	0.52	–	0.63	–	0.55

One of the key factors in Ukraine's «digitalization» and the basics of its successful implementation is standardization, which is the basic element of the development and dissemination of digital technologies and guarantees compatibility, quality and GDP growth of the country. The processes of digitization in Ukraine should be ensured by increased security and trust in the use of ICT, including information security, cyber security, privacy protection of personal information, and rights of ICT users.

Development and implementation of the national «digital» strategy aimed at overcoming the barriers to the country's «digitization», correcting market failures, maintaining fair competition, attracting investment, developing a «digital» infrastructure and a «digital» economy in order to achieve national priorities.

The goal of Ukraine's digitization is to ensure that all citizens, without limitations of technical, organizational and financial nature, can take advantage of the «digital» world and not be in the so-called segment of digital divide. The telecommunications sector is at the forefront of such a transformation as an area that distorts large-scale changes in its market environment and is a key factor in the digitization of enterprises in any field of the economy (Table 3).

In the world and in Ukraine, the demand for access to high-speed Internet is increasing broadband access. The needs of the society are changing – increasingly frequent use of stationary and mobile digital devices, learning by electronic means, obtaining medical video services, interacting with government agencies, the use of various applications and automation systems, etc., fundamentally affects the amount and speed of data transmission. The state of the broadband access in Ukraine shows that with a sufficiently high average and a uniform distribution of penetration of the broadband access, a clear gap between the city and the countryside is present at around 30 %. Also, a significant number of rural populations (33–35 %) does not have a broadband access, but could join it. Due to the fact that the value of broadband access in households' incomes in rural areas of Ukraine is roughly 2 %, there are no market barriers.

6.3. The strategy of digital transformation of the enterprise. According to Ernst & Young, in 2016, 87 % of companies include digital transformation into their development strategy, and 40 % of the company leaders will be squeezed out for five years if digital transformation is not implemented [23]. It is projected that in the next five years on average four out of ten leaders of various industries will be pushed out by break through companies. Moreover, digital breakthroughs will occur in areas far from high technology. The main technological engines (trends) of digitalization used in corporate management by modern enterprises in 2017 are given in the Table 4. A clear understanding of the term «digital transformation» was formed and the idea of a set of relevant technologies emerged.

Table 4

The main technological engines (trends) of digitalization, which were used in corporate management of modern enterprises in 2017 [24]

Trend No.	Name of the trend	Comments for application in management
1	Artificial intelligence and in-depth machine learning	Intelligent devices based on intelligent models and deep neural networks (DPS)
2	Intelligent applications	Real-time services based on virtual assistants
3	Internet of Things («Smart Things»)	Industrial and household devices based on the Internet of things
4	Virtual (VR) and supplemented (AR) reality	Combining virtual and real objects based on 3D technology
5	Digital «double»	Digital dynamic models of physical objects using sensory sensors for simulation modeling
6	Bloc chain and chain blocks	Distributed data chains and cryptography
7	Dialogue systems	Dynamic services based on networks between people, processes, services and things
8	Mechanics of applications and services	Synchronization of devices and technologies on the principle of «smart home»
9	Digital technology platforms	New platform combining information systems, customer experience, analytics and forecasting, Internet businesses and business ecosystems
10	Adaptive security architecture	A multi-level system of real-time information security, including on the basis of Blockchain technology

Table 3

Comparative analysis of key indicators of telecommunication development, 2016 [22]

No.	Indexes	Ukraine	CIS	World
1	Fixed telephone subscribers per 100 inhabitants	19.8	20.7	13.6
2	Mobile cellular subscribers per 100 inhabitants	132.6	141.2	101.5
3	Fixed broadband network for 100 inhabitants	12.0	15.8	12.4
4	Active mobile broadband subscribers per 100 inhabitants	22.6	59.7	52.2
5	Coverage 3G (% of population)	90.0	77.1	85.0
6	Coverage LTE/WiMAX (% of the population)	1.4	45.9	66.5
7	Prices for mobile cellular communication (% GNP pcs.)	1.2	1.7	5.2
8	Fixed Broadband Prices (% of total PC)	1.1	3.3	13.9
9	Prices for mobile broadband 500 MB (% of total PC)	1.2	1.4	3.7
10	Prices for mobile broadband 1 GB (% of GNP)	0.9	3.1	6.8
11	Percentage of households with a computer	65.1	67.4	46.6
12	Percentage of households with Internet access	54.8	68.0	51.5
13	Percentage of people using the Internet	52.5	65.1	45.9
14	Internet bandwidth for each Internet user (kbit/s)	79.9	59.0	74.5

Note: LTE is a wireless high-speed data transfer standard for mobile phones and other data terminals; WiMAX is a telecommunications technology designed to provide universal wireless communications over long distances for a wide range of devices; PC/pcs – persons/person; GNP – gross national product

Huawei has proposed its Digital Transformation Analysis Index (Global Connectivity Index) based on the following parameters [25]:

- productivity (supply, demand, quality of service, potential);
- transformation (Big Data, Cloud, Broadband Access, Data Center and Internet);
- proposal – the breadth of the dissemination of information and communication products and services, taking into account the bandwidth of the networks;
- investment in ICT;
- degree of cloud service development;
- Internet expenses;
- level of development of data analysis technology and data centers.

Demand determines the need for ICT products and services, and takes into account the level of consumption of broadband by households, the number of mobile users, the number of downloaded applications, the frequency of access to e-commerce services, the degree of

migration into clouds, the amount of data subject to analytical processing, the number of Internet devices things and number of servers in the data center, quality of service, level of availability of services, including fixed broadband services, broadband mobile communications, and convenience of use of services. Potential an assessment of the prospects for the development of the digital economy based on these indicators, including the expected costs of research, cloud technologies, technology of the Great Data, mobility and Internet of things.

Another study entitled «Digital Transformation. How to Become a Leader» is conducted by the analyst agency «Arthur D. Little», specializing in consulting in the field of business strategies for the implementation of ICT, and it is devoted to assessing the impact of digital transformation on the activities of companies [24]. Research on the digital maturity of about a hundred European companies from seven industries, which are ranked under the Digital Transformation Index (DTI) a cumulative (ten-point scale) benchmark, derived from comparative peer reviews of companies.

Digital transformation primarily affects the possibility of attracting new customers, followed in importance is «bold among competitors» and the third – «New sources of income». Analysis of the distribution of the coefficient for vertical industries: the automotive industry (DTI 5.02) received the highest score at an average of 3.92 points, followed by a telecom (4.20), energy (4.11). The main barrier to digital transformation is the lack of specialists with appropriate knowledge, and the second – lack of understanding of the need for urgent business transformation based on digital technology.

The treatment of markets associated with the concept of «digital transformation» is still at an early stage, although analysts have already formed derivatives of this concept, reflecting the degree of influence of digital transformation on the economic efficiency of enterprises. Such indicators are difficult to compare – they make sense only in the context of a weighted assessment of various studies. However, despite the difference in the quantitative estimates of the impact of digital transformation on the efficiency of companies, there are a number of conclusions regarding which analysts are unanimous.

The dissemination of IT, initiated by business users, promotes the implementation of digital technologies, but the successful implementation of digital transformation is possible only with the centralized policy pursued by the company management, including through the IT departments. The digital transformation while more developed B2C market, but there are tremendous opportunities for the introduction of digital technologies to improve the efficiency of internal divisions of the company and its employees.

Today, there are plenty of examples from companies from traditional sectors of the economy that have upgraded their digital-based business processes and achieved impressive successes such as Square, Stripe, Landing Club, Prosper, SoFi Uber, FB, Alibaba. In 2018, according to Forbes observers, 67 % of company leaders from the Global 2000 list will take a digital transformation as the central focus of their corporate strategy.

7. SWOT analysis of research results

Strengths. The proposals on the formation of the digital strategy of enterprises, defined in the work, are aimed at ensuring the digital transformation of enterprises and

the economy as a whole, which has the following positive actions:

- big data management, use of the Internet;
- implementation of business intelligence;
- reduction of time for information processing;
- introduction of new digital products;
- use of cloud technologies and software;
- optimization of work with consumers;
- increase in productivity due to decrease in expenses as a result of automation of business processes;
- increase the competitiveness of the enterprise.

Weaknesses. Among the negative actions of the formation of the digital strategy of the enterprise are the following:

- the growing need for investment support of digital transformation;
- provision of information risk protection system;
- lack of specialists with relevant knowledge;
- high wages of IT specialists.

Opportunities. Opportunities for further research are determination of the quantitative impact of the digital strategy on the performance of the enterprise. As it is expected, when introducing a digital strategy, an enterprise receives «digital dividends» from digital transformation in the form of gaining competitive advantages and competitiveness in general, as well as in improving economic efficiency indicators and productivity of production activities.

Threats. The main threats that represent a negative impact when introducing a digital strategy for an enterprise are the emergence of cyber threats and the occurrence of additional costs for ensuring information security when conducting a digital transformation should be considered when forming a digital strategy for an enterprise.

8. Conclusions

1. As a research result of the trends in the development of the digital economy, it is determined that today state programs and strategies for the development and promotion of digital technologies and digitization of national economies and industries are being developed and implemented in various countries of the world. In the European Union alone, there are more than 30 national and regional industrial initiatives on digitalization (in the digital market).

The study of the digital economy and society index (DESI) shows that in 2017, Denmark, Finland, Sweden, the Netherlands, Luxembourg, Belgium, Great Britain, Ireland, Estonia, Austria are leaders in the development of digital technologies among the countries of the European Union on the following indicators:

- communication;
- human capital;
- Internet using;
- integration of digital technologies;
- digital public services.

2. The analysis of the main factors influencing the digital development and the formation of the digital strategy of enterprises shows the development of the following trends, such as:

- artificial intelligence and deep machine learning;
- intelligent applications;
- «Internet of things» («Smart things»);
- virtual (VR) and augmented (AR) reality;
- digital «twins»;
- blockchain and block chains;

- interactive systems;
- mechanics of applications and services;
- digital technology platforms;
- adaptive security architecture.

The formation of a digital enterprise strategy is becoming a major factor in the growth of enterprise efficiency.

3. As a result of the conducted research on the modern conditions for the formation of a digital strategy for an enterprise and the advantages of ensuring digital transformation, it has been determined that the development of a digital strategy for an enterprise is aimed at:

- integration of information technology in the business, attracting investment in information technology, optimizing IT costs;
- creation of IT architecture and IT-based management;
- clear description and control of IT services when interacting with service providers;
- obtaining competitive advantages and competitiveness.

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