

DIGITALIZATION AS AN INNOVATIVE MODERN FACTOR BUSINESS DEVELOPMENT: PROSPECTS AND THREATS

Volodymyr Panchenko¹, Yana Dovhenko²

¹Doctor of Economics, Professor, Professor of the Department of Mathematics and Methods of its Teaching, Volodymyr Vynnychenko Central Ukrainian State University, Kropyvnytskyi, Ukraine, e-mail: op_panchenko@ukr.net, ORCID: <https://orcid.org/0000-0003-0958-7752>

²Ph.D. in Economics, Associate Professor, Associate Professor of the Department of Mathematics and Methods of its Teaching, Volodymyr Vynnychenko Central Ukrainian State University, Kropyvnytskyi, Ukraine, e-mail: dovhenko73@gmail.com, ORCID: <https://orcid.org/0000-0002-3254-8746>

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Abstract. One of the most influential modern trends is the active development of innovations and modern information technologies, which gradually acquire the status of a key driver of the development of economic relations, correspondingly affecting the features of ensuring economic security not only in the context of development prospects, but also on the contrary, regarding the need to form appropriate warning systems and protection against digital threats. The rapid introduction of scientific and technological progress at the enterprise made it necessary to make digital transformation a priority. Every year, it becomes more and more difficult for companies to become competitive and gain a foothold in the market without the use of artificial intelligence and various services. A few dozen years ago, humanity did not think about the need for such a term as "digitalization". However, the development of means of communication and innovative technologies has become a decisive factor for the introduction of digitalization at the enterprise. The digitization process is the implementation of digital innovations and technologies for the automation and optimization of business processes, as well as the improvement of communication channels between the enterprise and its consumer as a result. The aim is to obtain scientifically based economic solutions for the introduction of digitalisation into the management structure of enterprises to optimise investment attraction in the context of financing the innovation activity of enterprises, which determines the relevance of the article. The chapter of monograph analyses the prospects and obstacles for the development of business digitalisation in Ukraine. In particular, significant attention is paid to the use of SWOT analysis for a deeper understanding of the main problems and prospects of digitalisation in the country. The results of the study deepen the theoretical knowledge of the impact of digital technologies on business models. The results of the study can be used by senior management and business developers, as a clear definition, examples and tools facilitate the DT of business models. These stages of digital transformation enable companies to take advantage of the potential of digital technologies (e.g. sensors, big data) and rethink their business model. By applying these stages, companies can optimise their current BM and create a clear competitive advantage.

Keywords: digitalization, innovation, information technology, consumerism, development, transformation.

Every year, digital transformation takes a more important place in modern society, which has led to the emergence and spread of "digitalisation". "Digitalisation is a general term for the digital transformation of society and the economy. It describes the transition from the industrial era and analogue technologies to the era of knowledge and creativity, characterised by digital technologies and digital business innovation," Innolytics' definition reads. Digitalisation is penetrating almost all industries and services, bringing about important changes in the management of companies, making them more flexible and competitive in today's market. Digitalisation opens up many new opportunities for organisations to develop effectively and is an effective mechanism for implementing positive trends. Therefore, the development and implementation of digital strategies will help business organisations adapt to the growing pace of digitalisation and ensure their sustainable development. The term "digitalisation" comes from the English word "digitalisation", which means digitisation. Literally, digitalisation is the process of transferring information into a digital format, i.e. converting paper carriers into electronic ones, photographs into images on a screen. However, digitalisation is not limited to this. Digitalisation is a necessary process for the development of modern enterprises in the neo-economy. It is designed to simplify and speed up the work with large databases, and to automate all types of activities. The need for digitalisation is driven by the desire to continuously improve the competitiveness of business organisations, which in turn is a prerequisite for their survival and development in the neo-economy.

The dynamics of innovation processes is one of the key indicators of the financial position of companies operating in the market. Innovative processes are carried out through the introduction and use of new equipment, technological processes, high-quality raw materials and products, and new methods of production organisation. In the context of network interaction, the innovation process becomes open, manifesting itself in the form of combined efforts of start-up companies, industry consortia, as well as consumers, suppliers and intermediaries. This process

leads to the formation of cooperative chains by intensifying ties between partners and participants in the process. The modern digital model is supported by stakeholders.

The first is the state, which performs the functions of sectoral regulation, setting rules and regulations, providing support to industries, and encouraging industry leaders to switch to the digital paradigm. It is also supported by powerful enterprises in the industries: the formation of an expert community and a database of information resources and providing access to them for the development of digital services; innovative companies that drive the emergence of new digital products and services. Business development depends on many factors, but all market participants will have to change much faster in terms of digital transformation than they are doing today. The changing external environment requires a company to constantly comply with all global trends and standards, to ensure competitive advantages that will allow it to maintain its business operations for a long time and stably. The feasibility of digital transformation is determined by the speed and understanding of consumers in establishing a system of effective communication flows. The rapid and modern development of information, communication and digital technologies facilitates their integration into all sectors of the national economy. All sectors of the national economy are being modernised on the basis of digital technologies, opening up new business opportunities.

Thus, the formation of a new economic space makes it possible to create and sell competitive products and make effective management decisions. Thus, the main goal of the national digital economy is to create new opportunities for the development, modernisation and optimisation of all economic activities based on digital infrastructure.

Businesses that follow the latest trends in digital innovation and are ready to implement them, and are able to adapt to more flexible business processes, have a great potential for success

There are many definitions of the term "innovation" in science. The concept of "innovation" is generally accepted in the scientific community. Taking into account the achievements of researchers, project management as a way of innovative change

requires a deeper analysis based on the theoretical foundations of project management.

Studies of the issues of innovation theory and project management can be observed in the domestic scientific space in the publications of A. Amosha, V. Heits, S. Ilyashenko, O. Kuzmin, A. Cherep, etc. At the same time, publications on the topic of innovation project management in scientific research and official regulatory documents (European Commission, World Bank, European Bank for Reconstruction and Development) appeared as a result of a combination of project management (in particular, in terms of investment), which was formed in the 1950s of the twentieth century, and J. Schumpeter's innovation theory [1]. But, unfortunately, the current direction of digitalisation as a factor of business development prospects and threats is partially covered.

The aim is to obtain scientifically based economic solutions for the introduction of digitalisation into the management structure of enterprises to optimise investment attraction in the context of financing the innovation activity of enterprises, which determines the relevance of the article.

The article analyses the theoretical basis of the digitalisation of the economy as a whole, and considers the key methods of enterprise transformation. The presented results can be used during the transformation of an enterprise and optimisation of business structures for the implementation of innovative projects and tasks.

The rapid introduction of scientific and technological progress in large companies has made digital transformation a priority. The notion of digital transformation is often confused with automation or even digitisation of data. However, this is only part of the digitalisation process, i.e. digital transformation. As technological capabilities and the volume of information increase, it becomes clear that the data collected and the automation systems themselves have not yet brought a positive effect. They currently require resources, time and effort, attention and maintenance. Over time, attention will be paid to building more efficient modern processes, using new technological capabilities to contribute to the development of business and society in a powerful way.

The digital economy is a global network of economic and social activities that are carried out through the global Internet, as well as mobile and sensor networks. It is an economic model based on Internet access. This means opportunities to increase labour productivity, competitiveness of the enterprise, and reduce production costs. In the digital economy, human needs can be met better and more efficiently.

The successful functioning of the digital economy requires three elements

- infrastructure, including Internet access, software, and telecommunications
- e-business (conducting business activities via computer networks)
- e-commerce - the sale of goods and services via the Internet;

The development of business digitalisation is linked to the development of access to the general Internet and telecommunications. However, such "communication channels" are of no value if humanity does not use the latest information technologies.

Every year, it is becoming increasingly difficult for companies to become competitive and gain a foothold in the market without the use of artificial intelligence and various services. A few decades ago, humanity did not think about the need for such a term as "digitalisation". However, the development of communication tools and innovative technologies has become a decisive factor for the introduction of digitalisation in the enterprise [3]. The process of digitalisation is the introduction of digital innovations and technologies to automate and optimise business processes, as well as improve communication channels between the enterprise and its consumer as a result. The term "digitalisation" comes from the foreign word digitalisation, which means "digitisation". Literally, this term can be translated as "the process of transferring information into digital form". Automation means making a process less dependent on the human factor without changing the essence of the process. That is, an established workflow is described using a certain algorithm and then transferred to a digital format. It can be implemented by writing software packages or robotic systems. In this case, some of the functions performed by humans are transferred to the system. Digital transformation includes the following key aspects:

1. External communication. The model of building relationships with customers and partners needs to be rethought. The model where companies create a product that is convenient for them and then try to convince the client that this is what they need to buy is becoming ineffective. You need to prepare a product for a specific client, their needs and consumption situation. And this requires appropriate communication processes [2].

2. Business model. Many giant companies that have been successfully operating for decades on stable business models have collapsed on the threshold of the digital era. Modern business models imply flexible customisation both to the client and to circumstances and situations. The business model is becoming a sharing model rather than a commodity model, and it is becoming omnichannel rather than imposing its own channel on the market. "Sharing" is the English word for "to share". This is the Collaborative Consumption economy or sharing economy, which is the name of an economic business model where people can use technology to exchange values that they do not use. As part of the digital transformation, a significant rethinking of the actions of business management is underway [5].

3. Project processes. Today, traditional businesses use project management. However, less than 1% of the projects launched in Ukraine become commercially successful, with slightly higher figures in the IT sector. These figures largely explain why it is difficult for businesses to survive today. In contrast to project management, new businesses are switching to Agile and Lean technologies, or flexible change technologies. This helps to avoid most problems.

4. Lean production - management seeks to minimise losses on an ongoing basis. It involves every employee in business optimisation and is as customer-oriented as possible[6].

5. Working with data - rethinking. Previously, data management was structured as follows: a layer of data for previous periods was accumulated, then analysed, reports were prepared and decisions were made on their basis. Extrapolation was done: future development was calculated on the basis of past periods. Nowadays, the way we work with data is different, it's not just BigData anymore, today deep

machine learning, the use of artificial intelligence allows us to make decisions in situations with incomplete and asymmetric information [8].

6. Internal communications and relationships. In the context of digital transformation, it is necessary to build a different way of working with people. Remote work, outsourcing and freelancing are emerging.

As a rule, today's business organisations are not yet using all the directions and opportunities of digitalisation. Most often, they adopt only certain digital technologies, which leads to a delay in digital development and therefore reduces their competitive advantages. As noted by Guseva E. O. and Legominova S. V., the process of digitalisation can take place in three stages [1]:

1. Analysis of the company, goal setting and strategy development.
2. Implementation of digital technologies.
3. Analysis of the results.

In other words, you first need to analyse all business processes and strategic capabilities of the company, namely: determine the effectiveness of departments, internal and external communications, and analyse how digitalisation can improve them. In order to minimise risks, it is necessary to formulate a strategy in which new technologies should not fundamentally change business processes, but only simplify and improve them. In order to implement the plan, you need to either build a team of employees or engage external specialists. It takes a lot of time and financial resources to introduce new technologies - testing, fixing technical errors, training staff - and to implement them. After the implementation of each digital solution, a detailed analysis of the effectiveness and profitability of these innovations is required [3]. It should be noted that business digitalisation is a new creative process, an organisational innovation, and therefore there are no precise instructions for its implementation. Business organisations will have to face numerous mistakes and go through the process of rethinking the forms, directions, methods, and technology of using digital. An important pillar of digitalisation and the key to its success is the innovative climate in a business organisation and the corresponding corporate culture, a high

level of which is necessary for reliable communication between all levels of management in order to quickly implement changes [2].

According to a survey of senior executives, seven main obstacles to the implementation of digitalisation in practice have been identified, in particular [6]: low level of staff competence, lack of qualified personnel, lack of strategy, fear of change, insufficient funding, management position, and risk.

Digital transformation is the use of modern (disruptive) technologies to increase the productivity and value of an enterprise in the modern world. The main results of this transformation can include cost reduction, improved quality of services and products, and increased productivity. KPMG's research shows that 61% of companies have seen digital technologies increase competition in their business from new players. Today, 44% of companies worldwide have a digital development strategy. Digital transformation of a business model can take place at the level of its individual elements or the entire business model. The degree of DT includes consistent (marginal) or radical (fundamental) changes in the BM. The benchmark for the level of novelty is primarily the client, but DT can also affect its own business, partners, industry and competitors. As part of the digital transformation of a business model, tools and technologies (e.g., big data) are used to create new applications or services [7].

These factors require skills that enable the collection and exchange of data, as well as the ability to analyse, calculate and evaluate options. The estimated parameters are used to initiate new processes within the business model. Business model transformation is based on a sequence of tasks and decisions that are linked in a logical and temporal context. It affects four target dimensions: time, finance, space, and quality [8]. In 2017, German economists D. Schalmo and K. Wilms developed a sequence of stages (phases) of digital transformation of BM based on approaches to DT and existing theories on business model innovation. Let us consider the sequence of stages, their tasks and implementation measures in more detail.

The first stage is Digital Reality, where the company's existing business model is identified along with a value-added analysis, related and stakeholder analysis, and

a review of customer requirements. This provides an understanding of the digital reality for that company in various areas. The next phase is the Digital Ambition: based on the previous Digital Reality phase, the main goals for transformation are defined in terms of time, finance, space and quality. Digital ambition postulates which goals should be considered for a particular business model and its elements [6]. The third phase is Digital Potential, which identifies best practices and factors that contribute to the development of digital transformation. This serves as the initial stage in terms of digital potential and design of the future business model. For each element of the business model, different logically combined options are developed. The fourth step is Digital Fit, where the digital business model design options are analysed, evaluated and compared with the existing business model [9]. The final stage is Digital Implementation, which includes the finalisation and implementation of the developed digital business model. Design options are being developed as part of the digital implementation. The phase also includes the development of a digital customer experience and a digital value chain describing integration with partners. Resources and capabilities are also identified at this stage.

Each of the categories includes a set of specific activities and services, such as Digital Data: the collection, processing and analysis of digitised data to facilitate and improve forecasting and decision-making. Automation includes a combination of classical artificial intelligence technologies that enable autonomous operation and self-organisation. This reduces errors, increases speed and reduces operating costs [7].

Digital Customer Access tools are mobile Internet that provides direct access to the customer, ensures a high level of transparency and the provision of new services. And the last set of tools is Networking: a mobile or wired network of the entire value chain using high-speed broadband telecommunications enables synchronisation of supply chains, which leads to shorter production times and innovation cycles. The above list of tools can be supplemented with more capabilities and services if necessary. An example of additive manufacturing is the production of bionic aircraft components[11].

In July 2014, Airbus installed a bionic bracket in an A350 aircraft and flight tests were successful. This component was 3D printed from titanium powder and had the same characteristics in terms of function and strength as a conventional component.

The main advantages of such production are: - reduced material consumption and weight of the component (30% lighter); - reduced fuel consumption; - increased inventory flexibility, as Airbus can "print" spare parts on site according to original specifications, without depending on large production facilities or delivery expectations [9].

The impact of digital technologies on manufacturing firms is also significant, as robotics, automation, 3D printing, sensors and digital platforms will enable a fourth industrial revolution that will lead to a fundamental change in the economy that goes beyond the traditional trade-off between scale and customisation. This revolution is disrupting the traditional ideas that drive globalisation by enabling instant, low-cost local production. The challenge for industrial enterprises is twofold: to quickly embrace digital broadcasting, following GE's example, and to embrace disruptive change [8]. The above business models are most susceptible to the impact of digital technologies. However, in other sectors, digital technologies are driving companies to develop new business models (e.g. Amazon's move to cloud services) or to completely transform their business models (as IBM has done, moving from products to services and now back to analytics) [10].

Businesses that welcome and embrace change and are able to adapt to more flexible working models have a great potential for success. The main advantages of digitalisation are: maximising process optimisation, increasing earning opportunities by focusing on the customer.

Process optimisation involves reviewing the possibilities of building a flexible, self-adjusting system that can be further adapted to different conditions. Eliminating routine allows you to use your human resources more efficiently. The emergence of new technologies opens up new opportunities and profit options that were previously unavailable. It is digitalisation that focuses businesses on customer needs. The

customer is the main source of income, information and inspiration - an incentive to move forward. But in order to create the right product, you need to have information about the customer's needs at each stage of interaction. Moreover, this transformation is repeated. You need to constantly learn, transform and be open to change.

Factors affecting the transformation process:

➤ Concept. At the start, it is very important to determine the direction of development. You need to develop a strategy, an action plan, and a Roadmap. Identify goals, resources and priority areas for modernisation. In the process of developing the concept, all business processes will be considered, priorities will be set and obstacles to successful implementation will be removed.

➤ Staff training. There is one very important point from sociological research here, namely that in Ukraine, only 4% of people are ready to move into a new era and experiment, while 88% prefer comfort, security, stability and proven solutions. This means and is confirmed by practice that most employees will resist change, sabotage and try to demonstrate the failure of solutions and innovations. Therefore, it is at this point that employee-driven management, a human-centred approach to management, should come to the rescue. Therefore, successful digitalisation requires preparing employees for changes in work processes, accustoming them to flexible decision-making, and teaching them new technologies so that they can not only work effectively in the new environment but also become drivers of further change. Such readiness implies the ability to think creatively, knowledge and the ability to make effective decisions.

➤ Rejection of outdated technologies means rejection of technologies that actually consume resources and freeze business in a static connected state; of old stereotypes, habitual patterns of action. Such a competitive technology no longer helps to survive, and it is necessary to act on the principle of combining efforts. Розвиток цифрової економіки пов'язане з розвитком доступу в Інтернет і телекомунікацій. Але самі по собі такі «канали зв'язку» не мають цінності, якщо люди не будуть використовувати технології.

Before the outbreak of the pandemic, the virtual and traditional economies of the world lived separate lives that hardly intersected. Now they are likely to be forced to come together to create some kind of hybrid organisation that would be much more resilient in today's reality. Companies that saw certain opportunities in digitalisation but were unable to exploit them due to a lack of urgency are likely to move in this direction today. An example is the banking system. Not so long ago, the world's first completely unmanned bank branch appeared in one of the wealthy Gulf countries. This is the direction of the industry's digital transformation. Online banking, on the other hand, is booming in Africa, effectively moving bank branches to smartphones. Obviously, it is much more resilient to pandemics and quarantine than traditional banks as we imagine them, even if it is developing most rapidly in poor countries that are less prepared for a pandemic. In Ukraine, traditional banking has been developing alongside its digital version. But now, like the entire economy, it is going through difficult times, while online banking has received a new impetus for development, supported even by the regulator, the NBU. Recently, the agency allowed opening a bank account with a digital passport.

The coronavirus pandemic and the introduction of quarantine measures in many countries have partially changed the world's view of digitalisation. Many global thinkers have talked about digitalisation as the future of humanity and even a way to solve global problems such as COVID-19. They believe that due to the pandemic, the speed of informatisation will increase dramatically, and this will lead to a kind of digital leap of humanity, thanks to which the "digital" will penetrate all areas of human reality. Of course, they are right to some extent. But this view was formed under the influence of pandemic uncertainty and self-isolation in quarantine. It does not take into account some of the constraints on further development, such as the war in Ukraine, which should not be forgotten and some adjustments should be made.

Indeed, the corona virus pandemic crisis has created and exacerbated a number of human needs, such as the provision of food and medicine, video communication or online learning. It has created or expanded certain niches in the economy. Capital began to flow into these niches, and people wanted to make money on it. For

example, the market for webinar software (Zoom, Webex, etc.) has grown significantly and become more competitive, which has led to an increase in the quality of the relevant services. But does this mean that these programmes will be part of our lives forever, as all work is likely to be transferred to a remote format? Digitalisation has not yet been able to solve the problem of company motivation. So, most likely, where there is no way to pay for projects and set deadlines, sooner or later, humanity will return to working in offices and factories. After that, there will be no need for mass video communication, so we can say that digitalisation in this area will take a step back.

The coronavirus crisis has revealed another crucial point. In today's environment, every strong business must have some sort of IT department. When all companies face this problem for the first time at the same time, it is not a big problem because not everyone can go bankrupt and many countries have taken on some burden. But if this happens again, those who do not learn from the 2020 quarantine will not be able to survive, and their place in the market will be taken by those who are able to learn and change. Perhaps we are entering an era of unfavourable natural and historical processes, and no one knows how many times this will happen again. A progressive company should be prepared for any scenario. This means continuing to exist in the Internet space and mastering digital technologies.

Only a large company has enough resources for digitalisation, at least to pay for a permanent team of programmers. Small businesses, on the other hand, cannot afford it. Therefore, it will have to withstand all situations that require the transfer of operations to the digital dimension. This is likely to widen the economic gap between small and large businesses, similar to the gap between field workers with horses and John Deere equipment with satellite navigation. Under such conditions, the positions of companies will be established with the corresponding consequences.

Despite the fact that the national economy has made positive changes in the direction of computerisation, the great potential of the digital economy has yet to be tapped. Domestic companies are not fully implementing the latest digital technologies. Compared to European countries, Ukraine's results in the development

of the digital economy are rather modest. First of all, this is due to the slow updating of the technical base of enterprises. However, it should be noted that the banking industry's automation capabilities are quite high, as evidenced by the active development of domestic payment systems. For the digital economy to develop more actively, it is necessary to study and implement the experience of European countries at the state level.

Along with growth opportunities, the digital economy also increases regulatory and identity risk. The digital economy implies a fully digital personal identity. This is both convenient and risky. There are official threats of "identity theft", i.e. official civil and consumer lawsuits, as well as illegal actions on behalf of others.

Despite the fact that digital technologies are quite widespread today, there is a lack of research on their "security". The threat lies in the possible hacking of digital systems with unauthorised access to personal data. The amount of personal data collected by Internet of Things sensors is growing, and this raises fears of privacy intrusion. The main issue is the lack of full consent to the collection and processing of personal data, as well as what data should be collected and how it should be analysed. This carries a risk of loss of privacy.

Risks of artificial intelligence. Recognising people from home and city video cameras, voice recognition and voice commands in personal voice assistants, responding to changes in the environment, analysing user preferences - all these manifestations of artificial intelligence are in great demand today. But at the same time, there are significant risks. There are many methods of misusing the principles and algorithms of artificial intelligence. In hacker attacks, artificial intelligence that serves criminals easily obtains a "captcha", i.e. easily proves that "it is not a robot", which allows it to conduct numerous unauthorised transactions on behalf of a business entity.

Risks associated with the use of blockchain. Blockchain technology is another interesting technology designed to penetrate the economy. In addition to the obvious advantages, the conversion of processes to blockchain also contains new threats. Blockchain platforms themselves, like any rapidly evolving software, are not perfect,

they have vulnerabilities that are further complicated by holes in the "smart contracts" that have already been created by third-party programmers developed on the blockchain platform. Therefore, today the digital economy is an effective basis for the development of the public administration system, the economy, the social sector and the entire society.

There is also a risk that not all segments of the population will be able to take advantage of the benefits of digital technologies due to the lack of access to modern digital connections and digital equipment, which may pose a threat to social cohesion and inclusiveness and lead to the emergence of social classes of the digital elite and digital outcasts.

Other risks include social risks. Progressive labour automation and the use of robotics may result in the replacement of physical/manual labour. Due to the introduction of digital technologies, most existing jobs may disappear and people will be forced to retrain to remain employable. There may be a "disruption" of the labour market, with consequences:

- the threat of structural unemployment due to the inability to adapt the required skills;
- a wage gap: digital technologies will require a higher level of skills to use them;
- less access to social guarantees (lack of social and health insurance packages) in online employment.

To identify the main obstacles to the digitalisation of Ukraine's economy, we will use the SWOT analysis methodology. This method directly allows us to systematise the main features of the development of the digital economy infrastructure as a complex system of economic relations and to rank them according to various substantive features. It is based on the search for, identification and systematisation of the basic features of such an environment in four areas. These areas include the following: Strengths, Weaknesses, Opportunities and Threats. The use of this method to describe both current trends in the functioning of such infrastructure in Ukraine and to specify the main obstacles to its development is due to the simplicity of this type of analysis and the clarity of its basic components.

In the process of studying the basic obstacles to the development of the digital economy infrastructure, SWOT analysis is a fairly convenient way to identify such obstacles because:

To identify the problems of digitalisation of business in Ukraine, we will use the SWOT analysis methodology. This method directly allows us to systematise the main features of the development of the digital economy infrastructure and to rank them by content and impact. It is based on the search, identification, and systematisation of the following: Strengths, Weaknesses, Opportunities, and Threats. It is the application of this method that specifies the main obstacles to the development of business digitalisation due to the simplicity of SWOT analysis and the clarity of its basic components. In the process of identifying the main barriers to the development of digital economic infrastructure, SWOT analysis is a very practical way to identify these barriers, since.

Table 2.1 presents information on the weaknesses and strengths of the digital economy infrastructure development, as well as the main opportunities and threats to its further development.

The analysis of the information in Table 1 shows not only the prospects for the development of business digitalisation in Ukraine, but also the existence of certain problems associated with its digitalisation. It is worth noting that the SWOT analysis of the digitalisation of business development in Ukraine shows few strengths. This negative current situation is exacerbated by the extreme complexity caused by the war with the Russian Federation.

However, the country also has and will continue to increase the number of various opportunities that will arise for the development of business entities based on the introduction of digital technologies, and investors interested in investing are investing their capital in the development of promising areas of construction. digital society. It should also be noted that among the threats to the further development of the digital economy infrastructure are generally traditional obstacles to the national economy. Their gradual resolution will also contribute to the development of the national economy and the infrastructure of digitalisation processes.

Table 2.1. SWOT analysis of digitalisation of business development in Ukraine

Strengths	Weaknesses
<ul style="list-style-type: none"> - a system of training computer specialists in demand on the labour market; - a large number of domestic IT specialists who are potential employees; - legal quality in the field of e-business development; - the ability to freely search for information on the Internet; - saving time and reducing costs; - diversification and acceleration of business - Optimisation, improvement of efficiency and quality of work - Development of additional services 	<ul style="list-style-type: none"> - incomplete development of e-government; - low quality of legislative institutions; - cost of Internet services; -energy dependence; - low qualification of employees; - the degree of state support for the development of the IT sector, especially in the field of small business; - the level of development of the business telecommunications infrastructure; - protection of the rights of consumers of electronic services, network users; - formation of a taxation system in the field of computers; - Low level of intellectual property protection: - Insufficient provision of financial resources for development; - Significant disparities in the development of digital infrastructure by region of the country.
Opportunities	Threats
<ul style="list-style-type: none"> - insufficient level of creative development of the telecommunications sector, which requires new investments; - increasing demand and the need to expand infrastructure due to the growing demand for digital technologies from business entities; - gradual integration of the country's business into the European Union, implementation of European standards and approaches to ICT development; - introduction of fifth generation communications; 	<ul style="list-style-type: none"> - macroeconomic instability; -energy instability - instability and poor quality of the Internet; - an increase in the number of cyberattacks and ineffective cybersecurity systems; - general staff shortage.

Source: compiled by the authors

Therefore, the achievements of the digital economy may be overshadowed by the rather serious risks mentioned above. To mitigate them, it is necessary to identify specific risks of the digital economy in a timely manner and quantify these risks when designing any digital system. However, there are many industries that will have limited access to digitalisation. It is necessary that processes can be standardised and digitised. But when you still have to be creative and improvise, the possibilities will still be limited. This has long been said by various scientists. Artificial intelligence will not surpass human intelligence. Although it can even write small articles and

even compose poetry. But despite all this, it is far from a masterpiece of literary or artistic genius. There are many design programs for architects that help calculate various indicators and dimensions of a building, but so far no one has been able to replace an architect who creates architectural masterpieces. The development of digitalisation, the Internet of Things, and everything else can displace humans from the career of an automator. And then people will have a choice: to develop their creativity, which is necessary for work where computers are powerless, or to degrade, living on the main income from the state. In addition, digitalisation will not replace communication. Perhaps not for everyone and not throughout their lives, but there is a need for communication. Businesses in many industries depend on it. In particular, many women and men go to beauty salons, cafes, and restaurants not only to receive appropriate services, but also to be in a good mood, the main factor of which is pleasant communication with the staff, who, at best, also serve as a psychologist, confessor, doctor, and so on. Digitalisation is powerless here, it is just a tool to convert the menu into an electronic version if necessary, nothing more.

Business digitalisation is a rather evolutionary and organic process: New operating conditions have already been established in the markets. Thus, some business entities have not been able to navigate the innovations, and they will either withdraw from the race, not being up to date, or start a new round of development. Thus, the strongest and most flexible legal entities will always implement new technologies and approaches in the business process. They will encourage others to make innovative changes by their example.

Due to dynamic changes in the environment, businesses must constantly improve their competitive strategy, which will include automated solutions and the use of innovative technologies. Digitalisation is becoming a necessary trend, which, if ignored, will lead to the company's backwardness, loss of potential customers and eventual disappearance from the market. The introduction of digital technologies into business will increase the innovation and creativity of a particular type of activity. In order to find new ways of digitalisation, it is appropriate to follow the areas of innovative development of enterprises, including the digital environment, digital

management, digital culture and digital strategy. In terms of the level of digitalisation of the economy and society as a whole in different countries included in the Global Digital Competitiveness Index, Ukraine is improving, moving up two places from 60th to 58th, driven by talent acquisition, digital/technological skills, e-participation, and company agility. Such minor improvements allow us not only to optimistically forecast the level of innovative development of industrial enterprises through the prism of digitalisation, but also to adjust goals, objectives and strategic guidelines.

Doing business effectively in the digitalised world requires the use of digital technologies in business processes, management, and business models in general, as the ability of enterprises to operate for a long time depends on how well thought out their business models are in terms of creating customer value. Digital technologies and new analytical methods, such as big data, create new opportunities in the functioning and development of BMs. The results of the study deepen the theoretical knowledge of the impact of digital technologies on business models.

The results of the study can be used by senior management and business developers, as a clear definition, examples and tools facilitate the DT of business models. These stages of digital transformation enable companies to take advantage of the potential of digital technologies (e.g. sensors, big data) and rethink their business model. By applying these stages, companies can optimise their current BM and create a clear competitive advantage.

Despite the actual presence of various elements of the information and digital economy in Ukraine, there is, unfortunately, no comprehensive approach to its development on a national scale. In recent years, accelerated economic development has been driven by digital platforms, whose penetration into the social and economic life of mankind is becoming total. However, due to objective reasons, including the war, digitalisation will not be able to penetrate all economic and social spheres equally quickly and deeply. There is a certain unevenness in its spread, which is likely to increase over time.

References:

1. De Clerck J.-P. Digitization, digitalization and digital transformation: the differences URL: <https://www.i-scoop.eu/digital-transformation/digitization-digitalization-digital-transformation-disruption/>
2. Shalmo D., Christopher A. Williams, Luke Boardman. (2017) Digital transformation of business models – best practice, enablers and roadmap. *International Journal of Innovation Management*, URL: <https://www.researchgate.net/journal/International-Journal-of-Innovation-Management-1363-9196>
3. Ustenko M. Digitalization: the basis of enterprise competitiveness in the realities of the digital economy URL: <http://lib.kart.edu.ua/handle/123456789/2712>
4. Sokolova, H.B. (2018), “Some aspects of the development of the digital economy in Ukraine”, *Economic Bulletin of Donbass*, no.1 (51), pp. 92–96.
5. Gurenko A.V., Gashutina O.E. (2018) Directions of development of management systems in the conditions of digitalization of business in Ukraine. *Economy and society*, 19, 739 - 745 doi:10.32782/2524-0072/2018-19-113
6. Hrybinenko, O. M. (2018) Digitalization of the economy in a new paradigm of digital transformation. *International Relations. Part «Economic sciences».*, 16, 35–37.
7. The IMD World Digital Competitiveness Ranking 2020, P. 182. URL: https://www.imd.org/globalassets/wcc/docs/release-2020/digital/digital_2020.pdf
8. Digital Transformation of Industries (2016). Industry Agenda, World Economic Forum.
9. Liri Andersson (2017). Leadership Guidelines for the Digital Age. Leadership & Organisations
10. Michael Rachinger, Romana Rauter, Christiana Müller, Wolfgang Vorraber, Eva Schirgi (2018) Digitalization and its influence on business model innovation. *Journal of Manufacturing Technology Management*, 30(3), doi:10.1108/JMTM-01-2018-0020
11. Haanaes K., Oystein D. (2018) Fjeldstad Four types of businesses where technology is speeding up change. IMD. URL : <https://www.imd.org/research-knowledge/articles/which-business-models-are-most-affected-by-digital>.