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PROSPECTS FOR THE IMPLEMENTATION OF EUROPEAN EXPERIENCE IN THE USE OF DIGITAL TECHNOLOGIES IN THE ECONOMY IN THE CONTEXT OF DIGITAL TRANSFORMATION

Introduction. Digitalization is a major driver of global economic growth and a key factor in the development of the digital economy in Ukraine. In the context of Ukraine's European integration, there is a need to join European programmers of digitalization and digital transformation of business. In today's business environment, the concept of digitalization of society and the economy is seen as the basis for introducing innovative changes. In this sense, digital transformation is aimed at diffusing digital technologies into all types of business and public life, which requires the creation of an appropriate regulatory environment.

Digitalization of business has become one of the main trends in the modern economy, contributing to the efficiency, competitiveness and innovation potential of companies. The implementation of digital technologies in different countries of the world has its own peculiarities, which are determined by the level of economic development, government support and availability of technological solutions. At present, the development of digital technologies should not be seen as a specific goal. The main task is to effectively implement and use them in the business activities of companies.

Largely, the areas of banking, insurance, communications, and software development companies are being digitized. This is evidenced by the market capitalization of companies, which allows them to allocate sufficient financial resources to the development of digital technologies.

The use of digital technologies is becoming mandatory for many types of business in Ukraine operating in the current competitive environment.

In Ukraine, the digitalization of business processes is still underdeveloped and faces certain barriers.

The purpose and objectives of the study. The study aims to identify the essential features of digital business processes and the principles of their functioning. Today's digital world, businesses compete not only with local but also with global players. Businesses that integrate digital technologies have a better understanding of customer needs and can adapt more quickly to changes in consumer trends. Digitalization helps to optimize business processes, reduce the cost of routine operations and increase productivity.

Analysis of research and publications. Much scientific publications are devoted to the problems of business digitalisation. This study used indicators that characterise technologies [7].

The results showed significant differences in the levels of digitalisation between the old (EU 14) and new (EU 13) EU countries. Study [8] conducted a bibliometric study of the problem of assessing the effectiveness of the digitalisation process in Europe and the world.

The oldest article was published in 2016, which shows that digitalisation is a new research topic and is attracting growing interest. Italy, China and Finland have the most publications on this topic. Regulators and governments of European countries have also recently paid considerable attention to the problems of the dynamic development of the digitalisation process [1, 2, 3, 4, 5, 6], especially after the rapid spread of artificial intelligence technologies.

The purpose of the study is to analyse the benefits and challenges for business, including SMEs, associated with the spread of digitalisation of economic relations in the world and to analyse the process of business digitalisation based on the study of foreign experience.

Digitalisation as a tool for improving business processes and their optimisation was considered by Guseva O. Y. and Legominova S. V. [10], digitalisation of entrepreneurial activity by Korobok S. V. [11], Lazebnyk L. L. and Voitenko V. O. focused more attention in their works on the digitalisation of business processes [17],

at the global level, the process of digitalisation was studied by scientists M. Varlamov and Y. Demianova [18], and the research of S. Shkarlet and M. Dubyna on the security of digitalisation is worthy of attention [22].

However, there are still a number of issues, especially in terms of the prospects for implementing the European experience of using digital technologies in the economy, which should be addressed in this study.

Key points of the article. Most authors equate the concept of ‘digitalisation’ with ‘digitalisation’ and ‘digital transformation’. O. Y. Guseva and S. V. Legominova interpret the meaning of this process in detail, noting that digitalisation, like digitalisation, is seen as the transformation and penetration of digital technologies to optimise and automate business processes, increase productivity and improve communication interaction with consumers. [10, c. 34].

The essence of the concept of ‘digital’ is explained in Figure 1.

In the context of rapid digitalization, marketing tools have reached a new level, creating new relationships with customers through online advertising, the ability to place orders online, real-time customer service, and products and services that best meet customer needs.

Digitalization opens up new opportunities and, most importantly, helps to optimize and improve the company's operations, which is especially important for Ukrainian businesses during the war.

In general, terms, digitalization should be seen as the process of penetration of information and communication technologies into all processes of business entities to make them more efficient and flexible. In Ukraine, the most accessible and widespread examples of digitization and communication with government agencies are the Diia app, Netflix services, e-governance, online learning, and the transformation of Ukraine's healthcare, education, tourism, and security sectors.

On the one hand, businesses and their staff are consumers of such services, and on the other hand, the practice of starting a business in these areas is widespread. Thus, digitalization is relevant to the lion's share of activities of domestic, joint ventures and

foreign enterprises, and it is fundamentally changing our lives and communication processes. Businesses that go digital have no regrets and are moving forward.

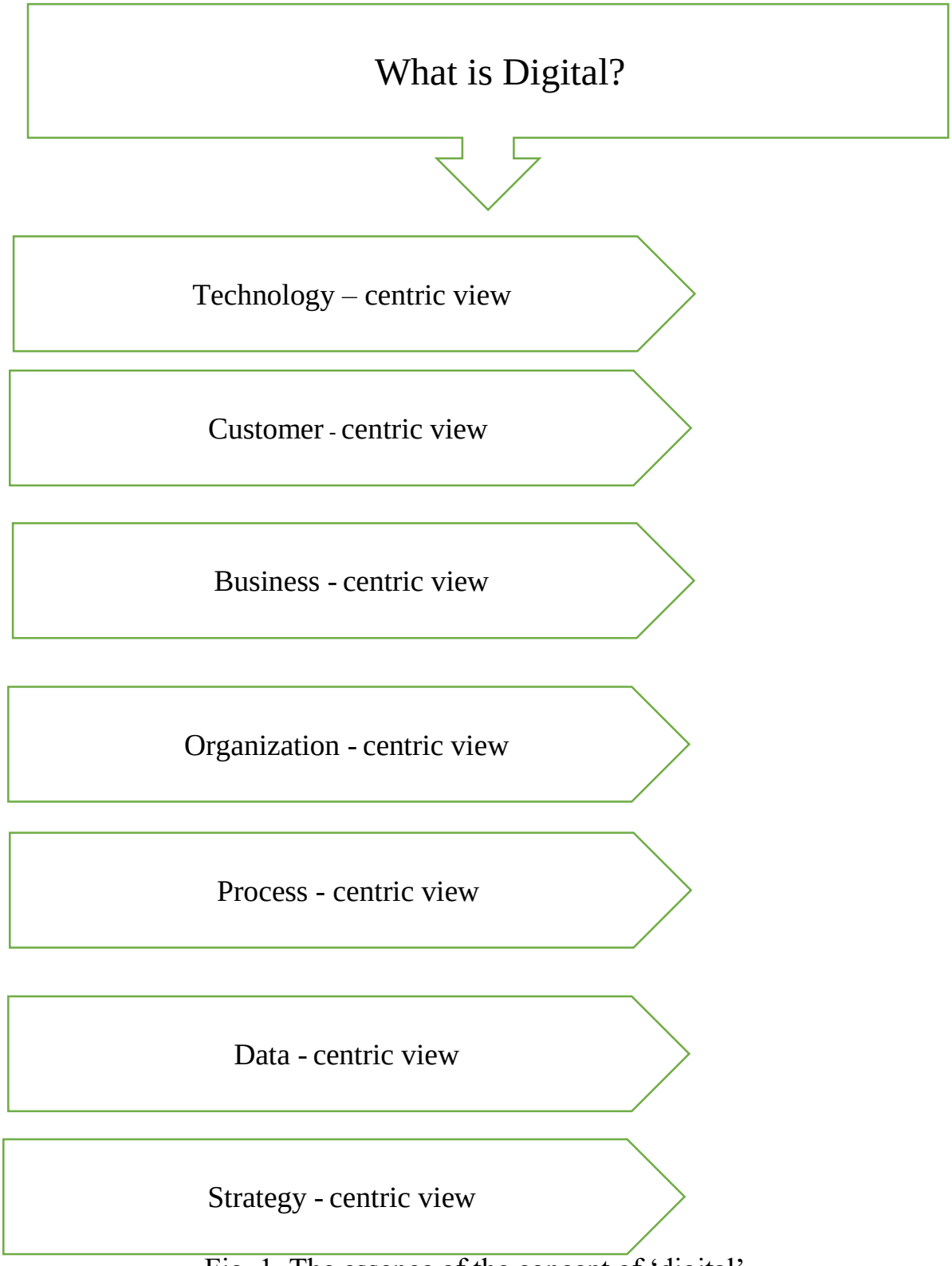

Fig. 1. The essence of the concept of 'digital'

**Source: developed by the author*

However, this is just the beginning. There are countries where the experience of digitalization is quite serious, covering all business processes and having its own nuances. Therefore, from a scientific point of view, the study of foreign experience can provide an invaluable information space for innovation at domestic enterprises. In general, terms, digital transformation can be described as the introduction of business processes and methods that allow organizations to effectively compete in an increasingly digitalized world.

The role of digitalization is shown in Figure 2.

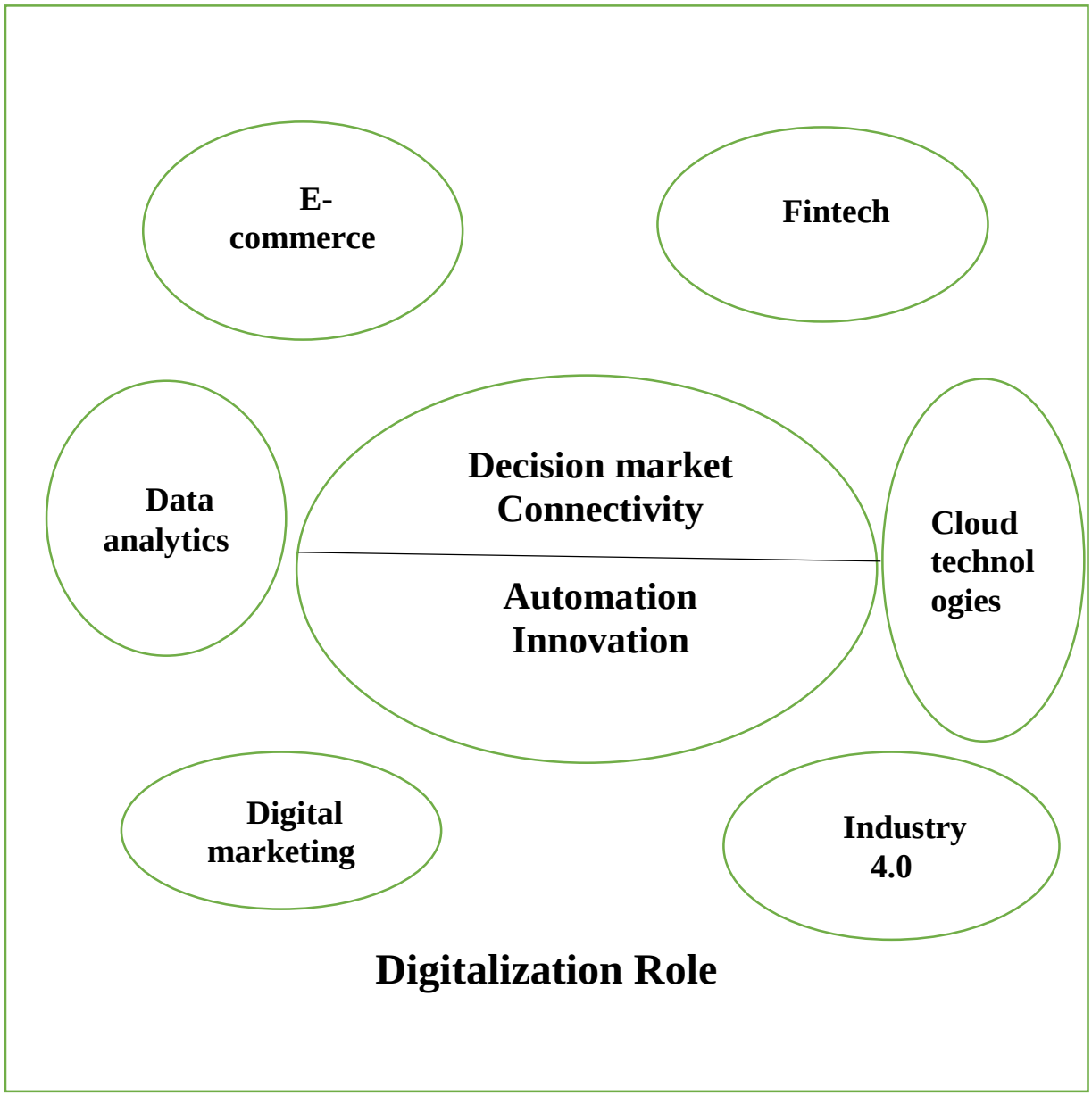

Fig. 2. The role of digitalization

**Source: developed by the author*

Today, the war in Ukraine has caused many problems for Ukrainian businesses. Among the key ones are limited resources, a small number of orders, logistics problems, and lack of staff, finance and raw materials.

Difficult current conditions should not be a reason to abandon the implementation of digitalization, but rather should stimulate this process because of future prospects. Digital transformation in general can rationalize in three global areas: document management, data analysis, and organizational activities [14].

Based on the above, the main advantages of digital transformation for core business processes are increased product competitiveness, customer loyalty, fast and flexible communication policy, optimization of resource use, reduction of production and sales costs, and for auxiliary and management business processes - simplification of work with large amounts of data, quality control, and management decision-making. As with any other phenomenon, digitalization has certain disadvantages, including the need for highly professional staff, the need for enhanced security in the digital environment, the instability of benefits due to the innovation of tools, and the high cost of implementation. Therefore, the first stage of digital transformation should be a detailed collection of information and assessment of both risks and prospects [11, p. 91; 22]. A schematic representation of digital transformation is shown in Figure 3.

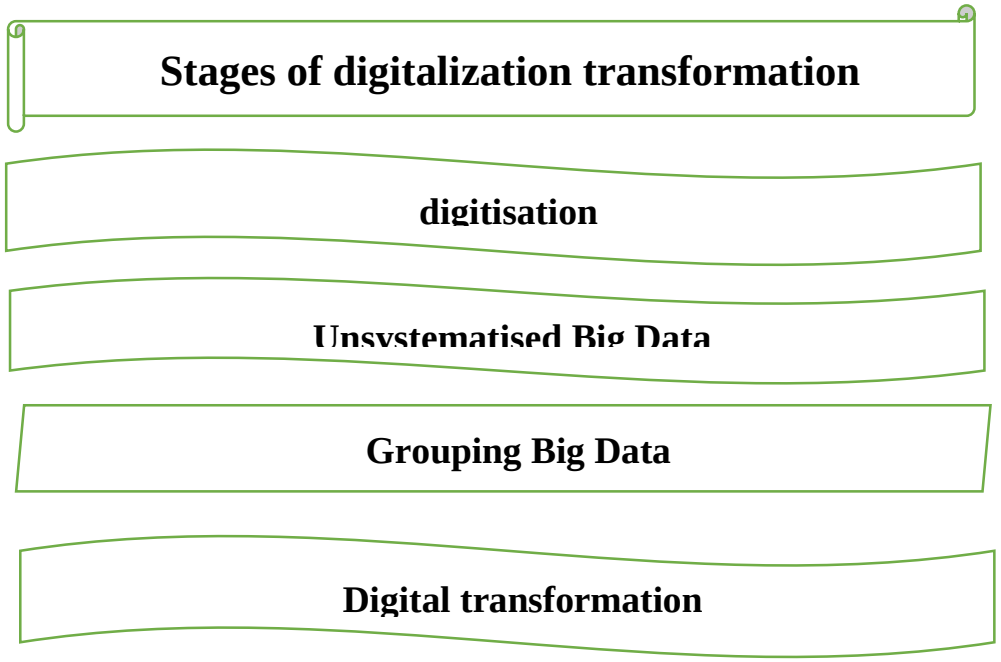

Fig. 3. Stages of digitalization transformation
**Source: developed by the author*

Elements of a digital strategy that embeds digital transformations shown in Figure 4.

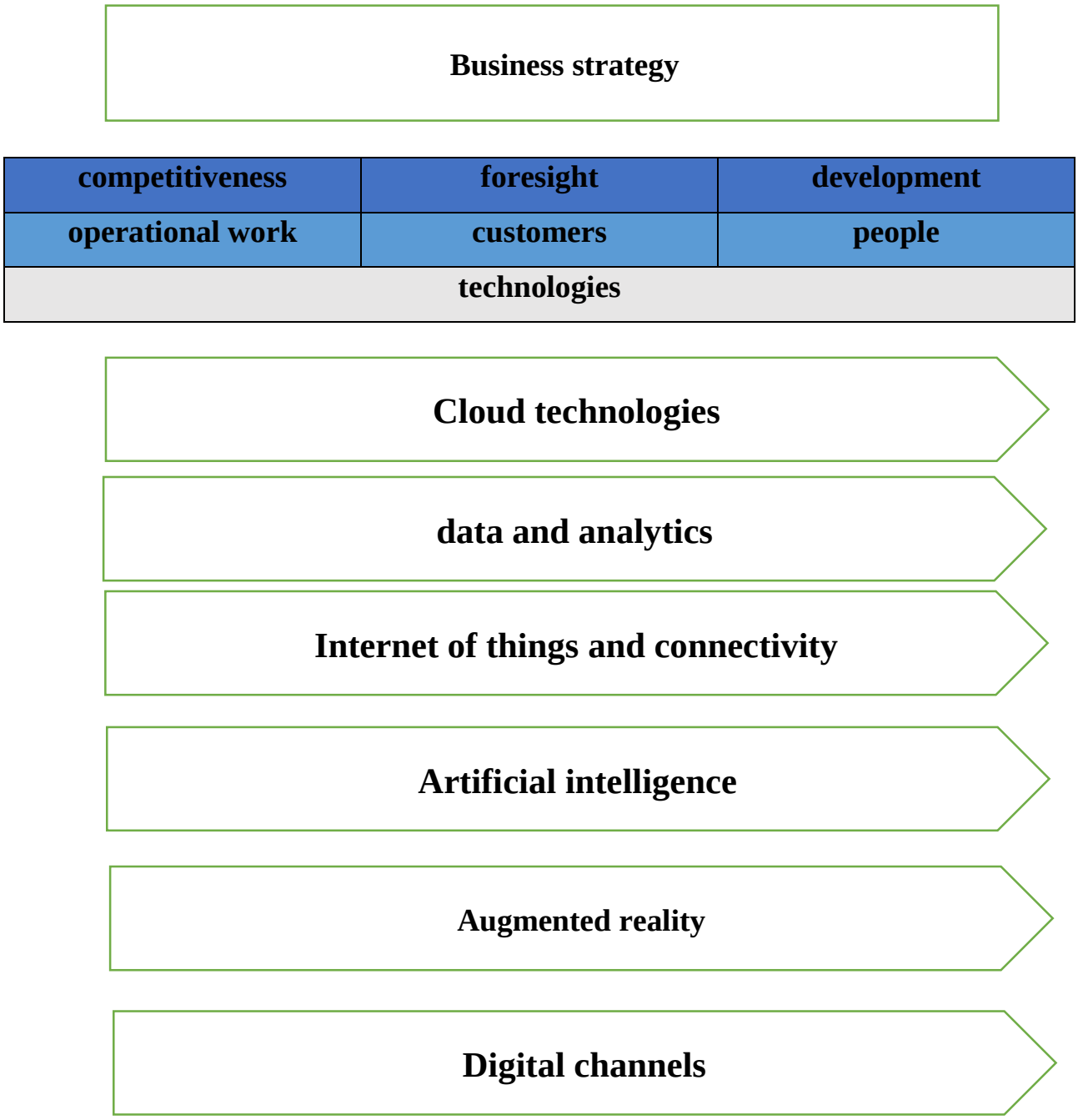

Fig. 4. Elements of a digital strategy that embeds digital transformation

**Source: developed by the author*

In the context of Ukraine's European integration, there is a need to join European programmers of digitalization and digital transformation of business. The focus of European countries on increasing the use of cloud settlement services by national companies and increasing the digital intensity of small and medium-sized

businesses is noteworthy. These strategic directions of development are reflected in the provisions of ‘2030 Digital Compass: the European way for the Digital Decade’ [12, 13].

Digital technologies are radically transforming our world, affecting all areas of company operations. They are present in many aspects of everyday life - from performing ordinary activities, such as shopping and correspondence, to the functioning of companies and government agencies. Digital transformation has become one of the main goals of the European Union. The Digital Decade programmer defines the key areas that will guide digital development in the EU until 2030.

Currently, a number of systems are used in foreign countries to ensure an affordable level of digitalization for micro, small and medium-sized enterprises, such as:

1. Digital platforms that promote efficiency by reducing transaction costs and information asymmetries, supported by reed ting systems, leading to lower consumer prices, increased market access, increased competition, more efficient use of various resources and increased flexibility of service providers.

2. Digital databases (cloud), which facilitate the transfer, processing and storage of data, which simplifies the work with large amounts of information, and thus optimizes a number of business processes.

3. Digital applications that ensure the availability of information about the product or service organized. The above-mentioned digital technologies, based on the research of international organizations [16], greatly facilitate and reduce the time for establishing communication between the manufacturer of a product or service and the customer. However, in modern conditions, enterprise management must actively respond to changes in the external environment, build and apply an effective enterprise management system, taking into account the transparency and structured nature of all business processes. Today, the use of digital technologies is even becoming mandatory for many businesses operating in today's competitive environment, especially to save time and avoid unnecessary costs.

Digitalization can provide many benefits, whether a company is switching from paper invoices to electronic invoices or completely revising all sales-related operations for online optimization and automated diagnostics.

The factors of digitalization and digitalization's impact on business processes are highlighted in Figures 5 and 6.

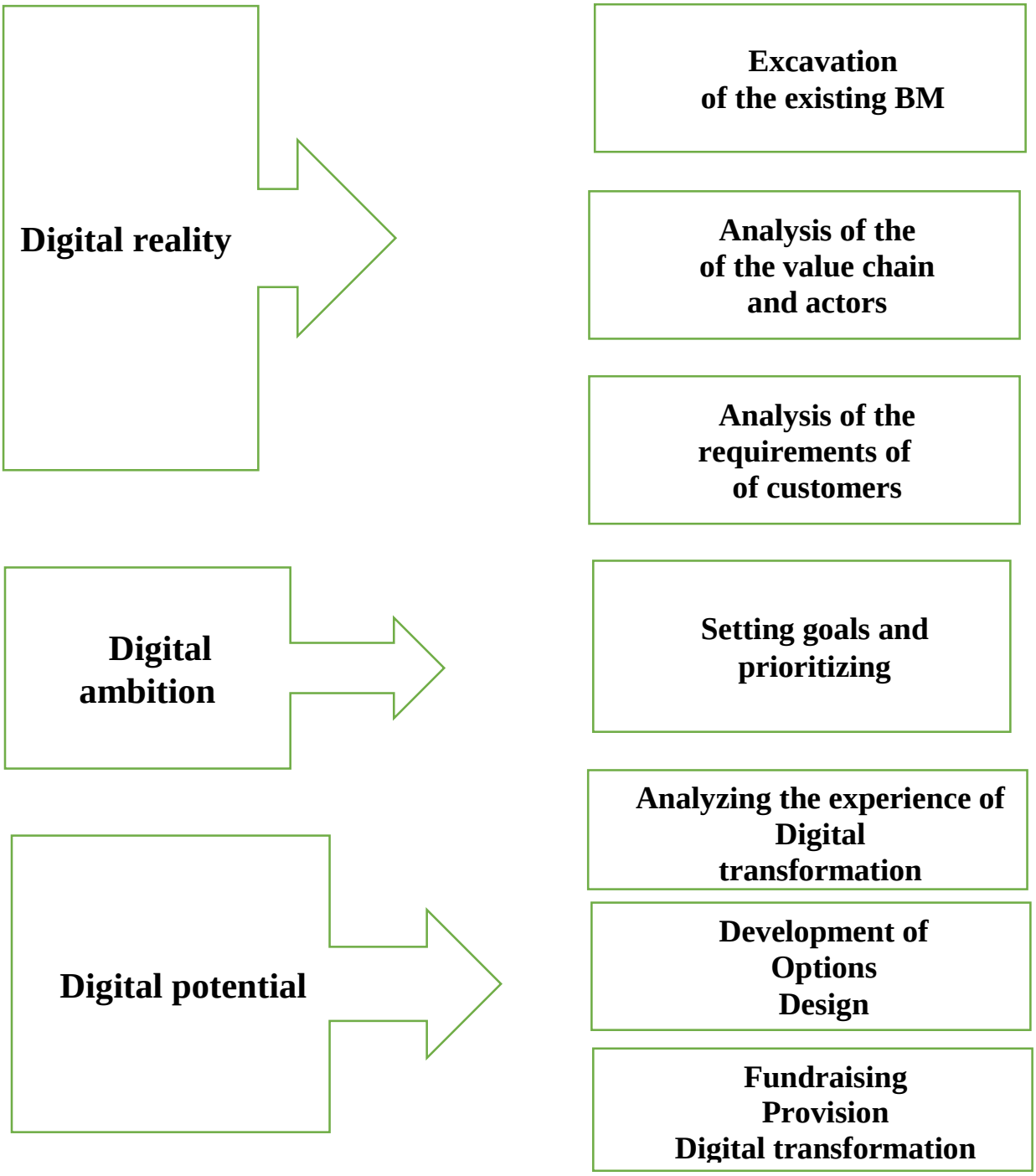

Fig. 5. Factors of digitalization affect business

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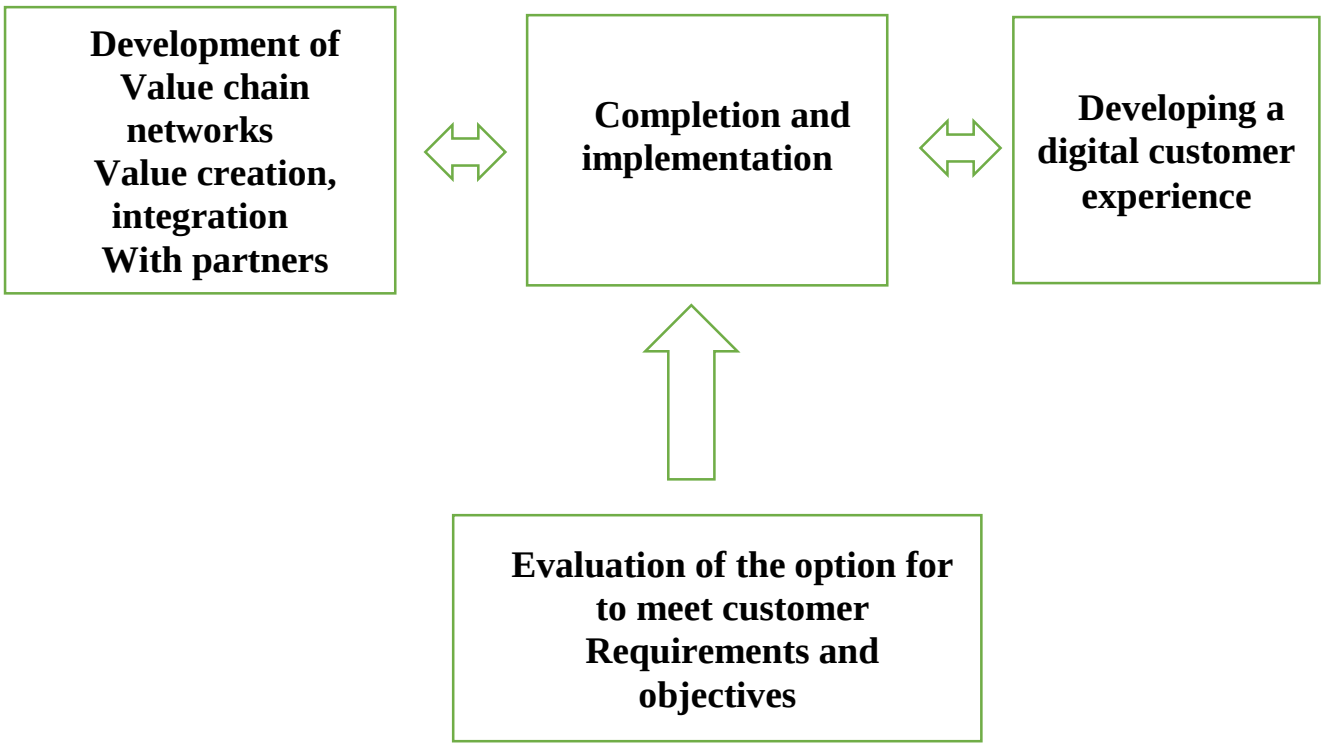

Fig. 6. Factors of digitalization affect business

**Source: developed by the author*

When done optimally, digitalization:

- Saves time by reducing or eliminating time-consuming manual data entry processes;

- Increases business agility by enabling you to anticipate challenges and plan solutions and responses to environmental changes;

- optimizes workflows by automating processes and reducing or eliminating human inefficiencies due to various circumstances (lack of skills, stress, fatigue, ill health, overload, distractions, errors, etc. ;)

- facilitates decision-making based on updated data by identifying patterns and preventing potential problems;

- Reduces purely technical errors by automating processes subject to human error;

- increases efficiency by maximizing the use of available resources;

- Reduces operating costs by reducing the human resources required for processes that were previously performed manually;

- improves the overall performance of the enterprise by increasing the productivity of individual employees and teams (this is like the effect of removing a bottleneck);

- improves customer service and engagement by implementing digital tools and a customer-focused process strategy;

- improves the quality of data analytics through improved data collection and storage, as well as the generation of information that will help make corporate decisions;

- provides ease of automation by creating a culture of limited manual intervention in time-consuming or repetitive conversations, operations, actions, and communications;

- enables quick decision-making by evaluating and redefining existing processes while testing new available or emerging alternatives;

- Increases revenue by creating improved sales and marketing systems based on efficiency and automation, driven by fresh data. The ideas of digital transformation have been relevant for the past few decades.

Therefore, most developed countries are closely monitoring the development and implementation of digitalization elements relevant to the information society.

Despite the fact that digital technologies are already bringing significant benefits to Ukraine, small and medium-sized enterprises have not yet fully realized the potential of digitalization. In addition to war-related challenges, other factors such as lack of awareness, shortage of skilled personnel, sectoral specificities and financial constraints have hampered the spread of digital technologies.

The government aims to further promote the digitalization of businesses, including SMEs, and is currently preparing the SME Support Strategy for the period from 2024 to 2027.

Economic difficulties include the destruction of infrastructure and property, loss of human capital due to internal and external migration, supply chain disruptions,

logistical difficulties, reduced export earnings, and a decline in budget revenues. In terms of the business environment, 64% of SMEs have temporarily suspended or stopped their operations since the start of the war. Although 84% of companies that suspended operations were able to resume operations within six months, ongoing attacks on critical infrastructure, electricity shortages and outages continue to hamper the economic recovery of SMEs. Companies continue to face a variety of challenges, including, but not limited to, reduced demand and productivity, rising costs, supply chain disruptions, and forced relocation to safer regions [15, 16].

Looking to the future, the Ukrainian government is committed to further improving the SME sector and enhancing the digitalization of SMEs, including through the upcoming SME Strategy for 2024-27 [16-18, 22].

Digital intensity is an indicator used to assess the level of adoption and use of digital technologies in companies' business processes. It measures how intensively companies use various digital technologies, such as cloud computing, big data, artificial intelligence, e-commerce and others. Companies usually calculate the Digital Intensity Index (DII) based on the use of various digital technologies. It can assess, for example, the use of artificial intelligence, e-sales, social media for business, cloud solutions, etc.

The index ranks companies according to the amount of digital technology they use and can range from ‘very low’ to ‘very high’ digital intensity. Assessing the digital intensity of companies is important because it allows us to understand how deeply digital technologies are integrated into business processes and how this affects competitiveness, productivity and the ability to innovate. A higher level of digital intensity may indicate greater adaptation to current market conditions and trends, as well as more efficient use of resources and better customer satisfaction.

The Digital Intensity Index (DII) is calculated based on a company's use of various digital technologies. It measures how much and what kind of digital technologies are used in business processes.

To calculate the DII, various aspects are taken into account, which may include

- The use of cloud computing.

- E-commerce.

- Use of social media for business.

- Use of artificial intelligence and big data.

This indicator assesses how intensively digital tools are used for internal communication, project management and collaboration within a company.

Companies are scored based on the amount of digital technology they use, and are classified accordingly into levels of digital intensity:

- Very low: Use of 0-3 technologies.

- Low: Use of 4-6 technologies.

- High: Use of 7-9 technologies.

- Very high: Use of 10-12 technologies.

A company that uses four or more technologies is considered to have a basic level of digital intensity. This index allows us to assess how well a company is integrated into the digital world and how effectively it uses modern technologies for its activities [20].

E-commerce can be considered a type of digitalization of the economy. Digitalization of the economy means the use of digital technologies to change business models and create new economic opportunities and market structures. E-commerce is an important component of this process, as it involves the purchase and sale of goods and services via the Internet, which is a prime example of the use of digital technologies in trade.

Thus, e-commerce is a key element in the digitalization of the economy, as it transforms many aspects of business and consumption by integrating digital technologies into fundamental economic processes.

Digital development in Latin America has been particularly intensified during the COVID 19 pandemic, which has contributed to the significant growth of e-commerce in the region. In particular, Brazil and Argentina were among the fastest growing online retail markets in the world [21].

The dynamics of digital development during the COVID 19 pandemic are shown in Figure 7.

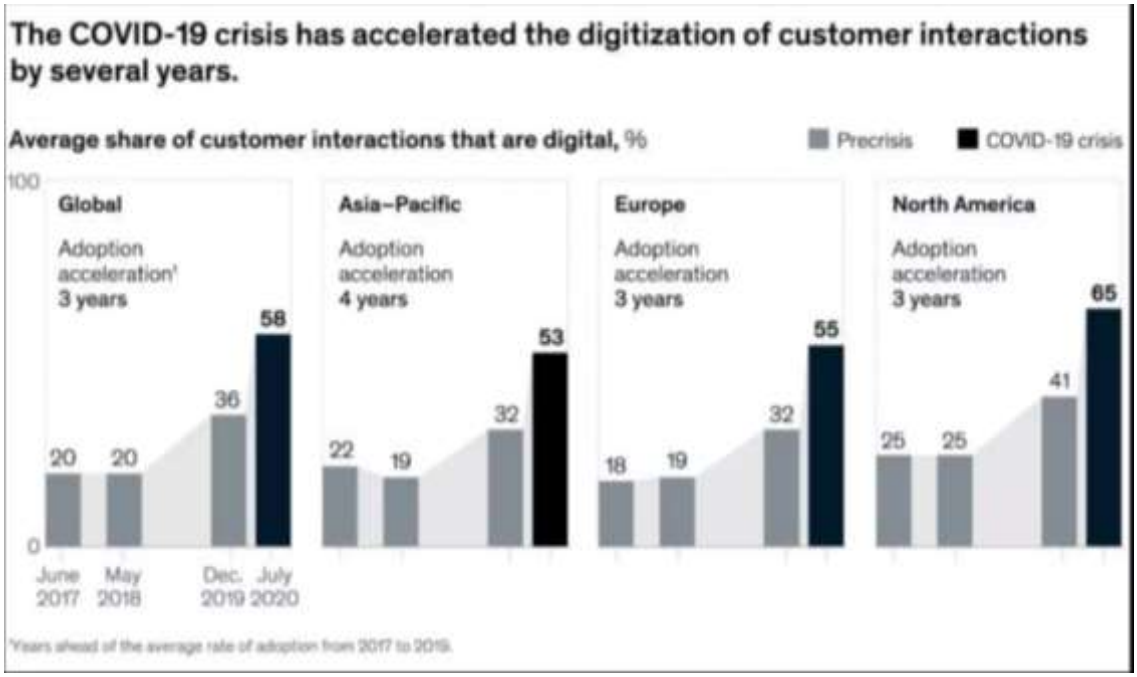

Fig. 7. Dynamics of digital development during the COVID 19 pandemic [21]

This trend is closely linked to improved online access, especially in online communities that traditionally had limited access to fixed broadband due to financial or infrastructure issues. However, with the availability of low-cost mobile broadband, these communities are now able to make greater use of online shopping and online services. This data highlights the global growth trend of e-commerce, which is particularly important for small and medium-sized enterprises as it opens up new opportunities for them to expand their markets and attract customers from different parts of the world. According to a study by the US research company Forrester, online retail spending is expected to grow significantly in the coming years in the largest European countries: Germany, the UK, France, Italy and Spain, which together account for 70 per cent of Western Europe's GDP. In particular, an average annual growth of 9.2 per cent is expected [19].

The growth of online retail can be attributed to a number of factors, including changing consumer habits, increased availability of the Internet and mobile technologies, and continuous improvement of logistics and payment systems in e-commerce.

To address these challenges, SMEs need to develop their own strategic approaches, attract the necessary resources, and use available public and private sources of financing for digital transformation.

The stages of digitalisation implementation at an enterprise should be carried out in the following sequence:

- collecting information about the business process, modelling it, and identifying it;

- identifying the places where information is generated, processed and consumed;

- modelling information business processes within business processes;

- Modification of the information system with regard to this model;

- Creation of an automated information system (using hardware and software);

- controlling business processes (fixing the parameters of business processes in the information system, setting plans, creating reports, etc.

With the introduction of digital technologies into the enterprise's activities, a number of advantages arise, such as increased production flexibility, increased efficiency of the enterprise's business processes. These advantages are due to the proactivity of changing the characteristics of the production process and ensuring the information integration of the stages of the life cycle of the manufactured products. They are formed due to the peculiarities of enterprise management in the context of digitalisation: focus on intensification of investment and innovation activities, technical and technological re-equipment of production, formation of a digital ecosystem, interactivity of the environment and high speed of response to changes; obtaining, processing, analysing.

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response to changes; obtaining, processing, analyzing and forecasting large amounts of data in real time; high speed of decision-making.

For the state as a whole, the benefits of digitalization include the emergence of a new source of GDP growth, the creation of new jobs, and more efficient use of available resources. However, the benefits of digitalization are not automatically achieved at any level. A number of potential risks arise in the course of its development:

- Incomplete or inconsistent regulatory framework, lack of institutional infrastructure;

- Threat to data security. Thus, for organizations and government agencies, there is a risk of hacking into computer systems, theft of personal data and other important information, and fraud in this regard; for users of connected applications, there is a risk of violation of privacy, as well as possible 'market power' of consumers;

- Potential job cuts, structural changes in the labor market around the world, which could provoke social and economic instability;

- Technological risks;

- insufficient number of qualified personnel due to the changes taking place, as well as low awareness of the process of introducing and using ICT;

- a growing gap between the level of economic and technological development of countries and different population groups, depending on both the level of economic well-being and the ability to actively participate in the digitalization process, which can lead to significant digital inequality;

- Difficulty in measuring and evaluating benefits due to the 'invisibility' of the digital economy;

- The costs associated with unreliable and expensive energy savings. Today, digital transformation is one of the most important tools for increasing a company's competitiveness in the context of large-scale digitalization of various spheres of life.

This is because digital transformation has a significant impact on the way businesses are organized and managed, marketing efficiency, resource availability,

cost reduction, and even the achievement of economies of scale. The integration process is shown in Figure 8.

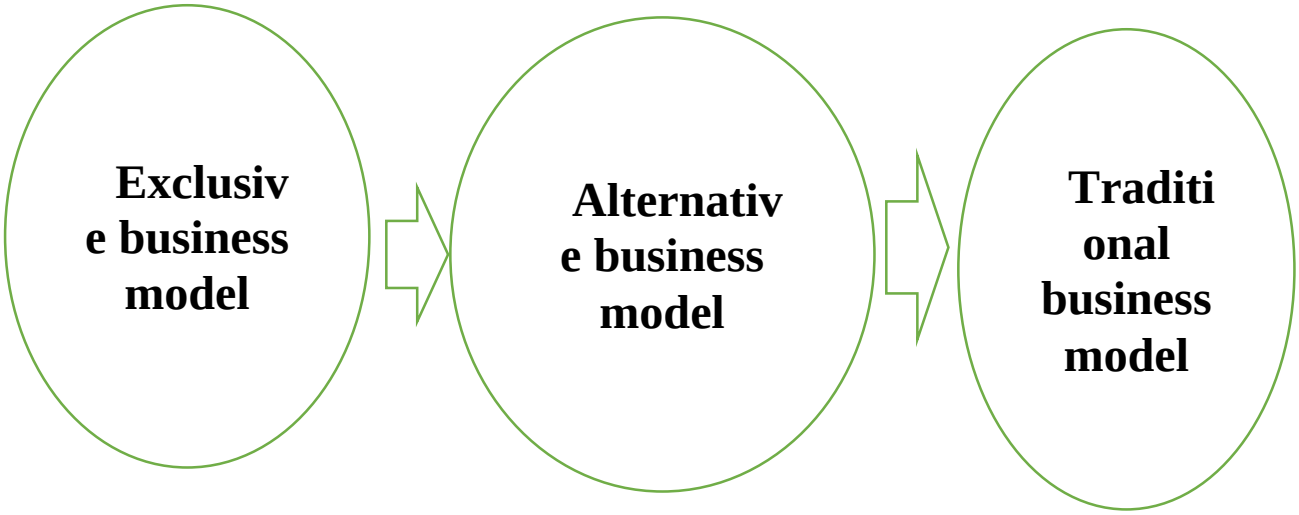

Fig. 8. Integration process in the context of business digitalization

**Source: developed by the author*

Therefore, companies using digital technologies are becoming market leaders and gaining a significant competitive advantage. In the digital world, the outdated management methods that have led to success in the past will no longer help companies. Large companies are particularly vulnerable to digital disruption due to their large customer base, significant profits and sometimes-erratic customer service.

In order to be successful in the digital economy, companies will have to not only change individual business processes or make adjustments, but also transform all business processes, change approaches to human resources management and explore new, 'digital' ways of interacting with customers. Digital transformation is not only about implementing technology, but also about changing the way we think and approach business. It allows companies to become more efficient, innovative and adaptive, which is a key factor in successful competition in today's rapidly changing world.

To develop effective measures to implement and spread the digitalization of the national society, it is necessary to analyses the factors and initiatives of the external and internal environment that shape and determine current trends in the digital

economy. With regard to the internal environment, it is worth noting that Ukraine pays great attention to the introduction of digitalization into public life.

Ukraine lags behind European countries in terms of the use of information technologies and services, meaning that the concept of forming a digital economy is being implemented more intensively in the EU.

It is advisable to analyses the impact of external environment initiatives on the development of a digital society based on a ranking analysis of international digitalization indices. The relevance of studying the country's position in the global coordinate system is because the ratings are an indicator of the need to take measures aimed at overcoming shortcomings and creating opportunities to increase the country's competitive advantages in the field of digitalization.

The digital rankings are calculated using statistical information from enterprises and organizations, as well as departmental and administrative government reports.

Thus, the economies of the leading countries aim to:

- supporting digital start-ups and enhancing the introduction of digital consumer tools into society;

- Attracting, training and retaining IT personnel in the national socio-economic system;

- ensuring fast and public access to the Internet;

- Export of digital products; coordination of the innovation process through the interconnection of universities, business structures and government.

Countries from the promising cluster are mainly focusing on:

- improving mobile internet access and its quality;

- improving legislation in the field of digitalization; encouraging investment in digital projects, financing digital developments;

- training domestic and attracting foreign IT specialists;

- Reducing inequality in access to digital tools by age, gender, class, and territory.

Countries in the problematic cluster consider the following to be their main development priorities

- Attracting long-term investment to address digital infrastructure issues;
- creating an institutional environment that supports the safe and widespread distribution of digital products and services to consumers;
- supporting initiatives to develop digital access for different population groups;
- introducing digital tools and applications for use in everyday life.

Thus, in order to create a country of the future with a developed digital economy, the state should aim at a targeted development scenario based on the widespread use of digital technologies and digital tools that will help improve the efficiency of the economy and business. In all areas of society that will be modernized through the introduction and active use of digital technologies, labor productivity will increase and fundamentally, new products and services will be created, leading to a complete transformation of the entire economic system and society as a whole. In addition, it should be noted that the development of the domestic market for the consumption of information, communication and digital technologies, where all entities, both business structures and households, must have motivation, needs and effective demand for digital products, shapes the trends of digitalization of Ukrainian society and an efficient economy.

Electronic information exchange between firms can significantly increase efficiency, in particular, by reducing communication costs, reducing the number of staff involved in processing outgoing and incoming documents, reducing the time required to organize various operations, and ensuring the speed and accuracy of information and high speed of financial settlements. In a broad and general sense, e-business is conducted in electronic form.

E-business should be understood as the implementation of key business processes using Internet technologies. Today, e-business is developing dynamically, and business activities in traditional segments of the economy are adapting to the requirements of the ‘new economy’ and are being transferred to cyberspace in

completely or in part. The advantage of e-business is its mobility and efficiency, which allows for more effective management decisions.

There are opportunities and resources available for the development and improvement of e-business in Ukraine, including human potential, qualified specialists, the growing number and quality of payment systems and services of Internet providers, and the improvement of the legislative framework for e-business.

With the development of computer networks and information and communication technologies, enterprises use information systems for automated business management, which are also rapidly developing and allowing them to increase the efficiency of their operations.

Let us look at the evolution of business models with the help of Figure 9.

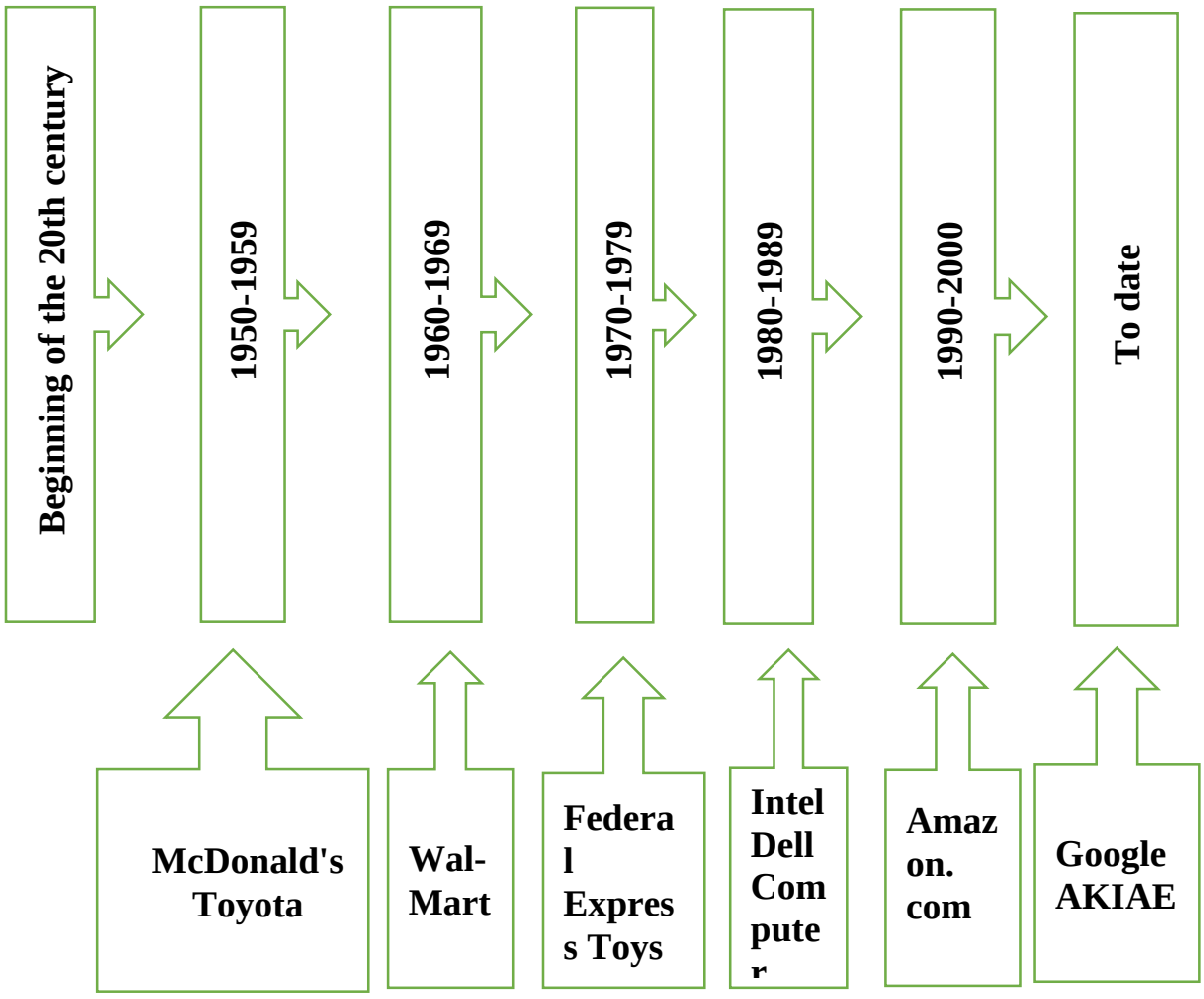

Figure 9. Evolution of business models

**Source: developed by the author*

Enterprise-wide information systems have become increasingly common as businesses have expanded globally and management decisions have been devolved to local managers so that they have more autonomy in decision-making, but still need to be aware of the whole organization to make the right decision.

The levels of business model development are shown in Figure 10.

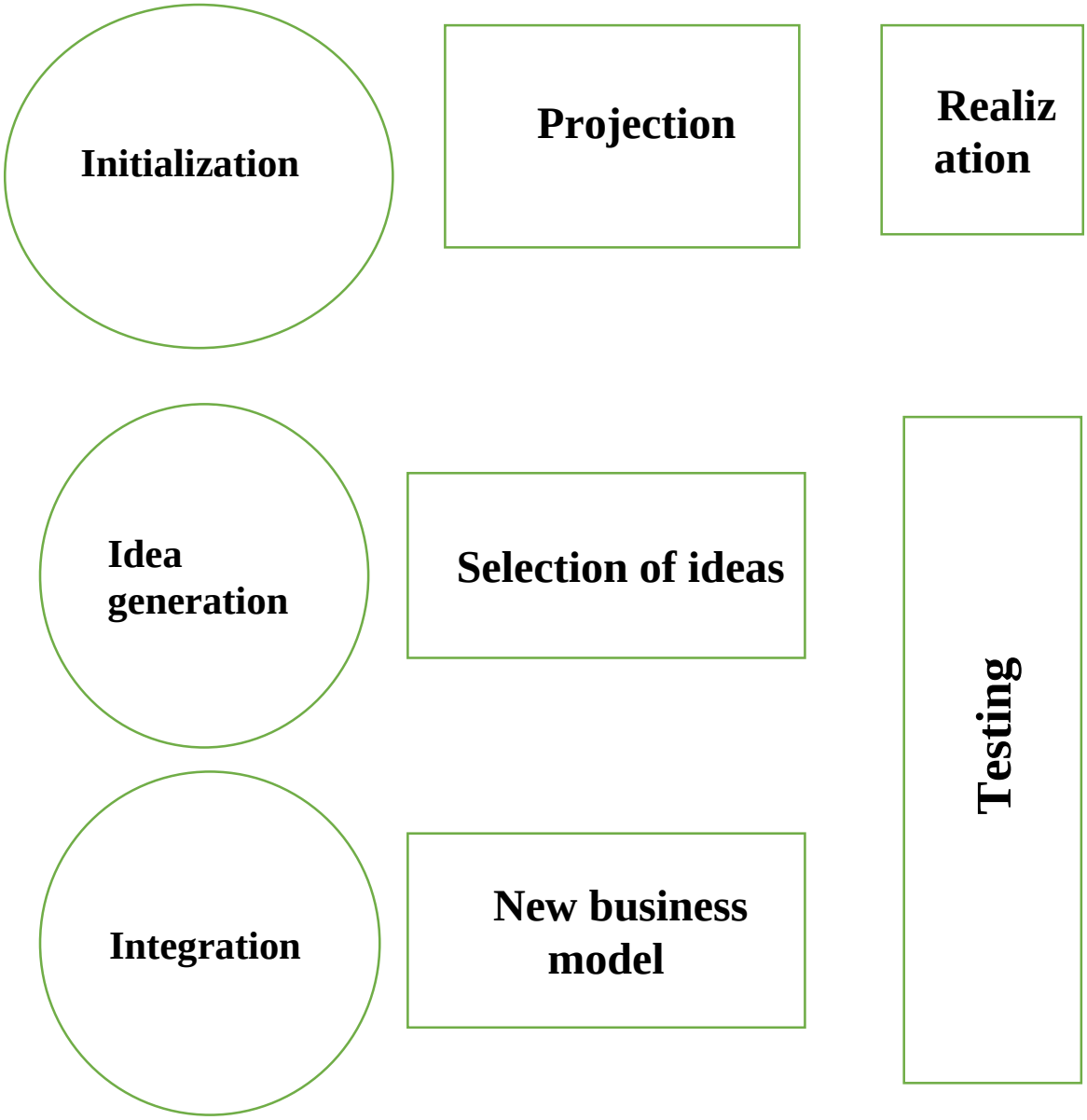

Figure 10. Levels of business models

**Source: developed by the author*

Digitalization is a major driver of global economic growth and a key factor in the development of the digital economy in Ukraine. An analysis of government

initiatives to develop the digitalization of the national society and economy shows that this process is increasing in intensity in Ukraine.

Thus, based on the results of the study, it can be concluded that Ukraine has joined the global digitalization process and is undergoing transformational changes towards the formation of a digital society and a digital economy. The basis for the transformation of traditional economic systems and the competitive advantages of national economies are the country's technological capability, innovation, ability and readiness to form a digital model of society. A comparative ranking analysis of Ukraine's place among the world's countries in terms of digital development has confirmed that the national economic system has the potential to introduce the latest digital tools and implement innovative changes in the formation of a new type of society and economy.

Digitalization is the future of both global and Ukrainian business. During the war, it is the only way for most Ukrainian companies to remain resilient and continue to grow. Digitalization makes businesses competitive in the market. Over time, digital transformation will penetrate all sectors of the economy, and entrepreneurs must respond to these changes. This process will help optimize both core and auxiliary business processes, and for Ukraine, it will solve key problems in a time of war. After going through all the proposed stages of digitalization, a company will be able to use resources rationally, reduce the need for human resources and finance, automate some processes, increase sales and establish communication with customers, but before such a transformation, both benefits and threats need to be assessed. Today, there are a large number of digital tools available to help you choose the right digitalization direction for your business.

Regional digitalization is necessary to provide quality healthcare, education, social, administrative and other public services, ensure access to mobile and fixed-line internet, and improve cybersecurity and critical infrastructure in general.

New technologies, including digital platforms, are inevitably becoming a source of business process transformation. The digital economy is already changing consumer preferences and production methods, and it is capable of disrupting entire

sectors of the economy. As a result of these processes, business processes are radically changing, and the value proposition, monetization and strategic control methods, as well as the requirements for critical competencies and operating models are changing. The main components of business models are shown in Figure 11.

<table>
<tr><th colspan="5">Company name</th></tr>
<tr><td>key activities</td><td rowspan="2">key partners</td><td>customer relations</td><td rowspan="2">value proposition</td><td rowspan="2">client segments</td></tr>
<tr><td>key resources</td><td>channels</td></tr>
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Figure 11. Components of business models

**Source: developed by the author*

An example of digital transformation of business models is shown in Figure 12.

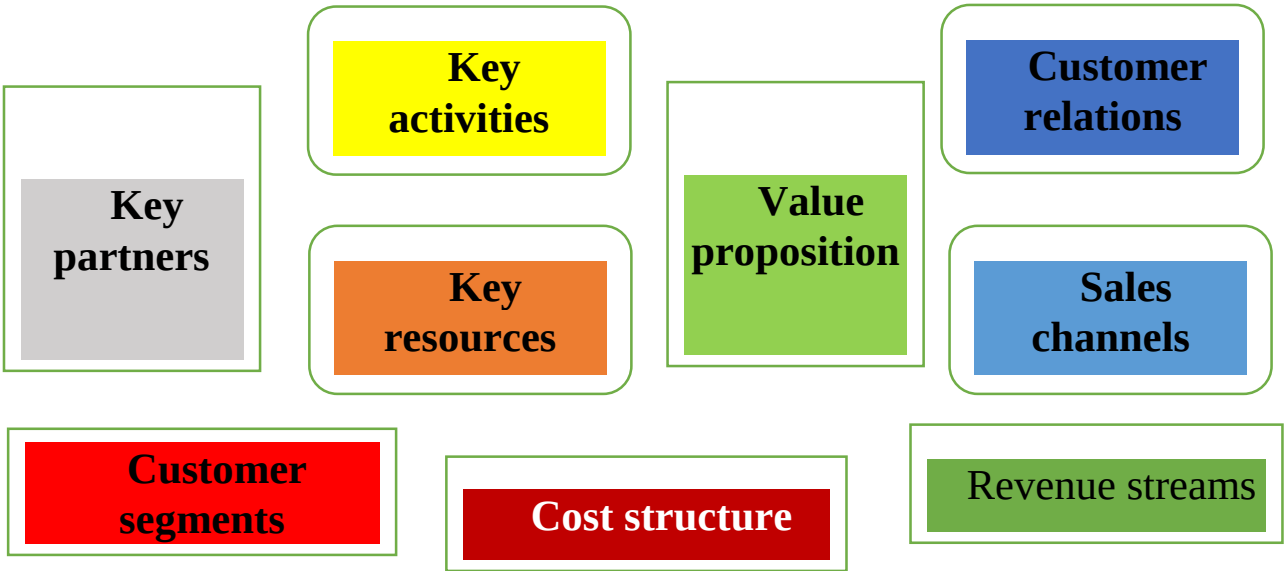

Figure 12. Example of digital transformation of business models

**Source: developed by the author*

Conclusions. The difference in digital intensity between small and medium-sized enterprises and large companies in Europe can be explained primarily by the fact that SMEs often have limited financial and human resources to invest in digital technologies.

Large enterprises, on the other hand, have larger budgets and the capacity to make large-scale digital investments. In addition, SMEs may not have sufficient access to highly skilled IT professionals. Large companies are more likely to have in-house IT departments with advanced skills and knowledge. SMEs may not have a clear strategy or experience in implementing complex digital transformations, while large enterprises are more likely to have advanced change management and strategic planning processes.

Large enterprises may have a greater need for digitalisation due to the larger scale and scope of their operations, which requires more efficient resource management and process optimisation.

Addressing these challenges requires SMEs to develop strategic approaches, attract the necessary resources, train and develop staff, and use available public and private sources of financial support for digital transformation.

Overall, the digitalisation of SMEs is critical for their survival and growth in the rapidly changing digital economic space. It provides significant opportunities for development, but also poses new challenges for SMEs that require a strategic approach and investments in digital technologies.

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