

# Digital Transformation in the Economy: Analysis of the Impact on the Structure and Functions of Enterprises

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## Abstract

Digital transformation in the economy is a key process that brings significant changes to the operations of modern businesses. This transformation defines new structures and functions of enterprises, as well as affects their competitiveness and ability to adapt to changes in the digital world. In this context, the aims are to review and analyse the key aspects of digital transformation and its impact on the structure and functions of enterprises.

**Methodology:** In our research, we used various approaches and methods: monographic, systematic, induction and deduction, graphical and tabular.

**Results:** It is determined that the purpose of digital transformation of business entities is to optimise the available resource potential and working time, as well as to increase the efficiency of business processes. This, accordingly, leads to an increase in the efficiency of economic activity. It is noted that today digital technologies have completely changed business, as they provide an opportunity to gain an advantage over competitors by creating revolutionary and transformational business models. Among the main objectives of introducing digital technologies at enterprises are automation of all production and economic processes carried out at the enterprise; increasing the efficiency of all business entities; intensification of knowledge and information exchange; increasing the share of jobs in high-tech industries.

**Scientific Novelty:** is that it examines the impact of digital transformation on the structure and functions of enterprises, considering it as a key process in the modern economy. The research expands our understanding of how digital innovations affect businesses and help them adapt to changes in the digital world.

**Conclusion:** The article concludes that the digital transformation in the economy is a key factor affecting enterprises and determining their success in the digital world. It changes the structure and functions of enterprises, making them more adaptable and competitive.

Undoubtedly, this transformation requires businesses to be flexible and willing to learn, but with the right approach, it can lead to significant growth and success in the digital economic environment.

**Keywords:** Digital Transformation, Enterprise Structure, Enterprise Functions, Digital Technologies, Supply Chain.

## Introduction

Digital transformation is a fundamental process that affects all aspects of modern business and society in general. In today's world, digital technologies are transforming the economic landscape and opening up new opportunities for businesses. This transformation is not only changing traditional business models but also requires businesses to rethink their strategies and operational approaches.

The purpose of our research is to review and analyse the key aspects of digital transformation and its impact on the structure and functions of enterprises.

This topic is extremely relevant in today's world, as digital transformation is becoming a decisive factor in the competition and development of enterprises. The study of such an important topic can help both academics and practicing business leaders to better understand this process and make informed decisions about the digital transformation of their enterprises. Our work aims to fill this gap and provides a valuable contribution to the study of this important topic.

## Research Focus

Our research is aimed at considering and analysing the impact of digital transformation on enterprises in the digital revolution. We will explore innovative technologies, examine their role in changing the business landscape and the efficiency of business processes. In addition, we will assess the impact of digital transformation on the organisational structure of enterprises, including management methods and customer relations. Our work will also look at the opportunities that are opening for the development of new business models through digital innovation. This research project will explore and analyse these aspects to better understand the importance of digital transformation in today's business environment.

## Research Aim

1. Study of the term “digital transformation”.
2. Consideration of the benefits of digital business transformation.
3. Assessment of the impact of digital transformation on the structure and functions of enterprises.

Research Questions: To achieve our goals, we set ourselves the following key research questions:

1. What is digital transformation and its benefits for businesses?
2. How does the organisational structure of enterprises change under the influence of digital changes?
3. What are the new functions of enterprises adapting to digital transformation?

These questions will help us to thoroughly analyse and reveal the key aspects of this process and its impact on businesses in the modern world.

## Methodology

We used different approaches and methods in our research. The first of them is monographic, which included an analysis of literature and previous studies, including 30 sources from domestic and foreign researchers. The second method is a systematic one, which was used to develop and clarify the terminology related to the concept of “digital transformation” and to study the key aspects and characteristics of this concept in the context of its impact on the structure and functions of the enterprise.

The next methods were induction and deduction, which were used to formulate hypotheses, test them using the data collected, and draw conclusions. Finally, we used graphical and tabular methods to visualise the results of our research, creating tables and figures to better understand the data and findings of our study.

General Background. “Digital transformation” is a modern phenomenon that has a strong impact on business organisations. It encompasses the processes of implementing digital technologies, changing business models, and reengineering business processes. Our research work is aimed at studying this phenomenon and its

impact on the structure and functions of enterprises. The audience includes students, teachers, researchers, business leaders, and anyone interested in the impact of digital technologies on modern business. The sources of information used in the work include relevant studies, reports, books, and articles in the field of digital transformation. We will include historical data in the research, as many modern problems arise from historical events and discoveries. We will find out how digital transformation was born and what historical events contributed to its development. We will also explain the novelty of our research, pointing out how it differs from previous studies and what contributions it can make to the development of this topic.

**Data abstraction:** Articles were included and excluded using screening methods. The selected articles were identified for the field of study, author, year of publication, country, sample size, sampling technique, results, and factors related to the study.

To search for papers on the selected topics, we used the Web of Science, the Open Ukrainian Citation Index, a search engine and database of scientific citations, and Google Scholar, an international search and metric system.

We defined the following criteria for the selection of publications:

- keywords: “digital transformation”, “enterprise structure”, “enterprise functions”, “digital technologies”, “supply chain”;
- the year of publication. The publications we selected are from 2018-2023;
- country. This criterion was not limited to any one country. We were interested in taking into account foreign experience and expanding our horizons.

## Results

Today, digital transformation in the economy is not just a newfangled term, but a strategic process that determines the competitiveness and sustainability of enterprises in the global business environment. The introduction of digital technologies, changes in business models, and organisational culture have become key components of this process, aimed at achieving greater efficiency, innovation, and meeting the needs of modern consumers.

Digital transformation of the economy means digitalisation of communications. The main idea is to use a standard set of digital signals to optimise and unify communication processes, giving them the most adapted form appropriate to the current stage of scientific, technical, and innovative development (Lutsiv et al., 2023).

It should be noted that the term “digital transformation” (DT or DX) was originally used in a narrow sense. It described the process of implementing digital technologies and strategies to improve productivity and optimise traditional business processes. This included the use of information systems, data processing, automation, and other innovative technologies to achieve specific business goals. However, a detailed study revealed an understanding of the socio-economic aspects of this phenomenon, including.

**Resistance and unpredictability:** Digital transformation is taking place in the face of constant resistance not only from competitors and consumers but also from the participants in the process themselves. This makes the specific results and forms of such transformation difficult to predict. It is important to understand that digital transformation is a complex process of change, and the outcomes and forms of such transformation can be unpredictable due to many factors, including cultural and organisational factors.

**More than technology:** The success of digital transformation depends not only on the implementation of digital technologies but also on the effective transformation of business models, strategic thinking, and the development of new processes that use these technologies. Simply installing new tools or systems does not guarantee success. It is important to change the way an organisation operates, using these technologies to create a competitive advantage.

**Top-down management:** Effective digital transformation often requires management to take an active role and lead. Organisations need to have a clear digital transformation strategy that directs efforts and resources in the right direction. Leadership must create an enabling culture and support change within the organisation.

Over time, the concept of digital transformation has become broader and more general. It is now seen as an

irreversible process of implementing digital technologies to improve people's lives, optimise business processes and change business models. From a business perspective, this transformation can be divided into three areas: customer engagement, operational process optimisation, and business model change (Digital Economy, 2019).

Today, information and technology determine the future development of society. The processes of globalisation require a constant review of the principles and foundations on which economic, technological, and social processes are based. Modern technologies open up new opportunities for continuous progress (Redko et al., 2023).

In today's world, digital transformation is seen as an important driver of the socio-economic development of both the country, the economy sector, and the individual enterprise (Zub, 2021). There are various interpretations of the term "digital transformation" in the economy. For some, it means the transition from traditional business models to digital ones, while for others, it is the process of using advanced technologies such as artificial intelligence, data analytics, cloud solutions, and others to optimise operations and customer interaction.

For example, Bilefield (2016) notes that digital transformation is the process of introducing innovative technologies into all areas of business, from daily operations to strategic decisions. This means not only the transition from analogue to digital tools but also a change in corporate culture and a revision of approaches to company operations and business management. As with any complex concept, digital transformation and its processes require more detailed study and research.

According to Peterson and Fogelberg (2020), digital transformation is an important component of the successful optimisation of business processes. It helps businesses reduce costs, improve efficiency and product quality, facilitates interaction and collaboration between different departments and employees, and ensures market competitiveness. In addition, digital transformation enables businesses to adapt to changes in the market environment to achieve better results.

Skorobohatova (2019) notes that digital transformation is the process of transforming an organisation's existing

analogue (sometimes electronic) products, processes, and business models using digital technologies to achieve greater efficiency and competitiveness.

Tyshchenko (2023) calls digital transformation the creation of new organisational capabilities that can guarantee the success of business entities in the digital era. According to the scientist, the consequences of digital transformation are:

- Increase labour productivity and efficiency of production processes. The use of digital technologies can help automate processes, reduce human intervention, and increase productivity;
- Improving the quality of life. Digital transformation can bring improvements in various areas of life, including access to new services, improved healthcare, education, and entertainment;
- new social uplifts. Digital transformation can create new opportunities for business development, innovation, and entrepreneurship, which can lead to new social uplifts;
- employment opportunities. The development of digital technologies can create new jobs in areas related to computer science, the Internet of Things, artificial intelligence, and other areas requiring specialised skills (Tyshchenko, 2023).

There is also an opinion that digital transformation is a future constant that will ensure the efficient functioning of the economy (Kovalevska et al., 2022).

We believe that digital transformation in the economy is an integral part of modern business, creating new opportunities and challenges. It enables businesses to increase productivity, reduce costs, improve customer service, and open the door to innovation. However, a successful digital transformation requires not only investment in technology but also a change in organisational culture and strategic thinking.

The goal of digital business transformation is to optimise the available resource potential and working time, as well as to increase the efficiency of business processes. This, in turn, leads to an increase in the efficiency of business operations.

Identify the following among the main advantages of digital business transformation (Table 1).

**Table 1: Key benefits of digital business transformation**

No.	Advantage	Characteristics
1	Eliminate bureaucracy in internal business processes	Digital technologies allow for the automation of processes, which reduces the need for complex bureaucratic procedures and speeds up the resolution of issues
2	Reduced time spent	Digital tools allow you to perform tasks faster and more efficiently, which leads to a reduction in the time required to complete various processes
3	Optimisation of the organisational structure	Digital transformation can lead to a reduction in the number of employees and hierarchical levels by automating and optimising business processes
4	Transferring document management to electronic cloud systems	This simplifies access to data and documents, facilitates collaboration, and reduces the risk of losing important information
5	Increase the speed of processing customer requests	Digital tools can greatly improve customer service by enabling faster and more efficient communication with customers
6	Increase customer loyalty	With the improved service and convenience provided by digital solutions, companies can increase customer loyalty
7	Reduced advertising costs	Digital advertising can be more effective and scalable, reducing the cost of traditional advertising platforms
8	Automate report generation and increase control	Digital tools automate the reporting process and provide greater control over business processes

Source: (Pavlovskiy et al., 2023)

The following levels of digital business transformation are distinguished:

- *making a decision on the digital transformation of the business.* This level implies an awareness of the importance of digital transformation, the introduction of new values and culture in the company, and the development of digital skills of employees.
- *digitalisation of individual business processes.* At this stage, digital tools are typically implemented in specific business processes, such as data collection, communication with customers and partners. The processes are not yet integrated into a single digital strategy;
- *development of a clear IT strategy for company management.* At this level, digital tools are implemented in a wider range of areas of the company's operations, such as customer experience, data management, partner interaction, human resources, innovation, etc;
- *Implementation of the latest digital technologies in business.* This level uses advanced technologies to forecast and analyse data and respond to changes in the market and consumer behaviour;
- *creating an open digital business infrastructure.* Here, the company creates an infrastructure that allows it to share and

exchange data with other digital platforms and partners. This allows for better customer service, the development of individual approaches, and the use of various digital services (Vlasenko, 2021).

The digital era is changing the way businesses do business and requires new approaches to the use of information technology in areas such as marketing, sales, customer service, telephony, messengers, document management, human resources, financial accounting, etc. Digital transformation also has a significant impact on the structure and functions of enterprises. Let us consider the main changes that digital transformation causes in the structure and functions of enterprises:

### **Changes in the structure of the company:**

- **Optimisation of operations.** Digital transformation allows you to automate many routine tasks and optimise business processes. This can lead to changes in the organisational structure, a reduction in the number of employees in certain departments, and an increase in the number of specialists in areas related to digital technologies.

Today, digital technologies have completely changed business, as they provide an opportunity to gain an advantage over competitors by creating revolutionary and

transformational business models (Kuznetsov et al., 2020). The main goals of introducing digital technologies at enterprises include: automation of all production and business processes carried out at the enterprise; increasing the efficiency of all business entities; intensification of

knowledge and information exchange; and increasing the share of jobs in high-tech industries (Vinnyk, 2020).

Table 2 shows some of the key roles of digital transformation in optimising business processes.

**Table 2: Key roles of digital transformation in optimising business processes**

No.	Key role	Description
1	Process automation	Digital technologies allow businesses to automate many routine tasks and operations, resulting in increased productivity, reduced risk of errors, and faster turnaround times
2	Improving communication	Digital technologies facilitate communication within the business and with customers. This facilitates better coordination, improves service quality, and creates greater efficiency
3	Using analytics	Collecting and analysing data allows businesses to understand their operations better. Analysis can identify problem areas in processes, help make informed decisions, and increase productivity
4	Use of cloud technologies	Cloud solutions allow you to store and process data efficiently, providing access to it anytime and from anywhere. This simplifies collaboration and facilitates information sharing
5	Improving product quality	The use of digital technologies such as the Internet of Things (IoT) enables businesses to monitor the quality and usage of their products in real-time. This enables them to improve product quality and provide more personalised service
6	Remote work	Digital transformation allows businesses to engage remote workers, which makes it easier to access talent and reduces rental costs
7	Reduced costs	Digital technologies can help businesses reduce their operating costs, including labour and other resources, which can have a positive impact on their financial position

Source: (Pavlovskiy et al., 2023)

The digitalisation of business processes is relevant not only for individual companies but also for entire industries, as it is becoming the only way to respond to rapid changes in the world around us. Digital transformation is already affecting the lives of both people and companies, including industry, retail, the public sector, and other industries (Mandrych, 2022).

- Increased flexibility. Digital transformation can lead to a more flexible organisational structure that can more easily adapt to changes in market conditions.

The main ways to achieve flexibility in the organisational structure of business entities are grouped in Table 3

**Table 3: Keyways in which organisational flexibility can be achieved**

No.	Method	Characteristics
1	Process automation	The introduction of digital technologies enables the automation of many routine operations and business processes. This makes the organisation faster and more efficient in responding to changes, as employees can focus on more important tasks and make decisions much faster

No.	Method	Characteristics
2	Data analytics	The use of data analytics enables a company to gain more information about its operations and market conditions. This helps to identify and respond to changes in the market environment and consumer demand in a timely manner
3	Cloud technologies and distributed teams	Cloud computing enables businesses to create distributed work teams and work on projects remotely. This allows for greater flexibility in organisational structure and allows you to tap into the best talent, even with remote employees
4	Innovations	Digital transformation also fosters innovation within an organisation, making it easier to adapt to new market conditions. The introduction of new ideas and technologies can help maintain a company's competitive edge

Source: own development of the authors of the article

The digital transformation of enterprises has led to a continuous process of change and transformation of market environment factors, the emergence of new niches and technological capabilities for the implementation of conceptual management tasks, which has contributed to the emergence of a new type of entrepreneurship - digital entrepreneurship (Frolova, p. 2021). Modern digital trends in the economy have become the basis for the following enterprises

**types:**

- *enterprises of traditional composition*. These businesses operate in traditional industries and use assets in real physical form. They can use digital technologies to improve efficiency and competitiveness, but their business model is based primarily on physical assets. However, digitalisation may include the introduction of internal management systems, electronic trading platforms, and online channels for customer interaction;

- *partially virtual enterprises*. These businesses combine physical assets with virtual and digital strategies. They may

own physical stores or warehouses and actively use the Internet to promote and sell their products and services. The focus is on digital presence, online marketing, e-commerce, etc;

- *virtual enterprises*. These businesses exist primarily in a digital environment and their assets and operations are conducted online. They may be organised as a network of agents interacting in a virtual environment. Such enterprises can include different types of businesses, from retail to services. They specialise in digital marketing, e-commerce, virtual customer service, and other aspects related to digital technologies (Kulinich, 2019).

**Changes in the functions of the enterprise:**

- *improving data management*. Thanks to digital technologies, businesses can collect, analyse and use data to make better management decisions. Data analytics is becoming a key function in the modern business environment, and it has a number of advantages (Table 4).

**Table 4: Benefits of data analytics**

S.No.	Advantage	Description
1	Consistency of decision-making	Data analytics helps businesses obtain objective data and facts on which to base informed decisions. This helps to avoid subjective influences and unreasonable decisions
2	Improved productivity	Data analytics helps to identify the effectiveness of business processes and identify opportunities for optimisation. This can lead to increased productivity and reduced costs

S.No.	Advantage	Description
3	Trend analysis and forecasting	Data analytics helps to identify market trends, forecast demand, and adapt to changes in time. This enables businesses to remain competitive
4	Increase customer satisfaction	Analysing customer data allows businesses to better understand their needs and provide a more personalised service. This helps to increase customer satisfaction and loyalty
5	Quick response to changes	Data analytics allows businesses to respond immediately to changes in market conditions, which helps maintain a competitive advantage

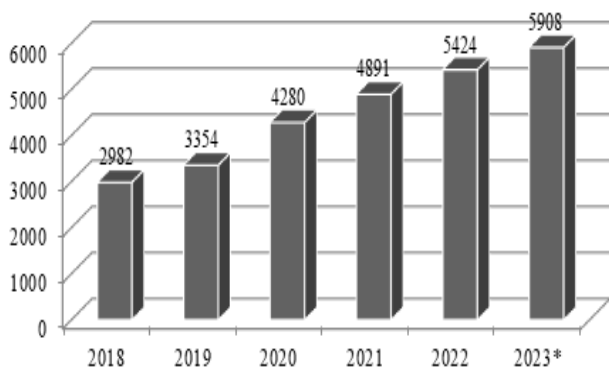
Source: own development of the authors of the article

All of these benefits make data analytics a key tool for businesses seeking to improve their efficiency and market success in the face of digital transformation.

- *changes in marketing and sales.* Digital transformation enables businesses to use digital marketing and sales strategies, including social media, e-commerce, and online advertising. This enables them to attract new customers and improve relationships with existing customers.

E-commerce today is a significant part of modern business and the undisputed leader in the world of trade. In 2022, the volume of online retail sales in the world was USD 5.42 trillion. The forecast of the German company Statista suggests that this figure will increase to around USD 5.9 trillion by the end of 2023. According to this company, the share of e-commerce in total global retail sales was 20% in 2022 (Fig. 1).

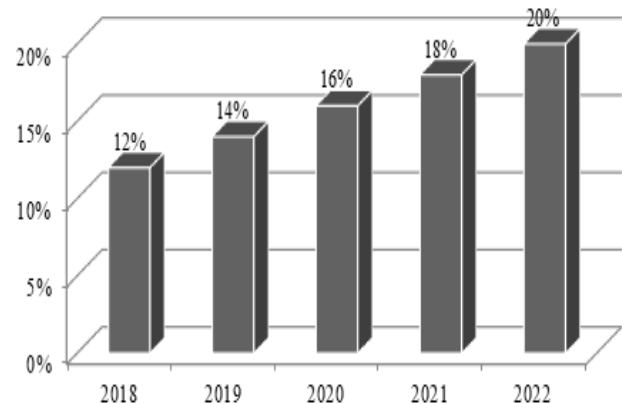
**Fig 1: Online retail sales in the world, billion dollars US**



Source: (Statista - thestatisticsportal, n.d.)

The development of e-business is taking place at different rates in different countries. In general, online commerce is a global trend, but there are countries that define and influence the rules of the game in e-commerce for entire continents. In 2022, the top three countries in terms of e-commerce share were China, South Korea, and the United Kingdom

**Fig 2: Share of e-commerce in retail sales, %**

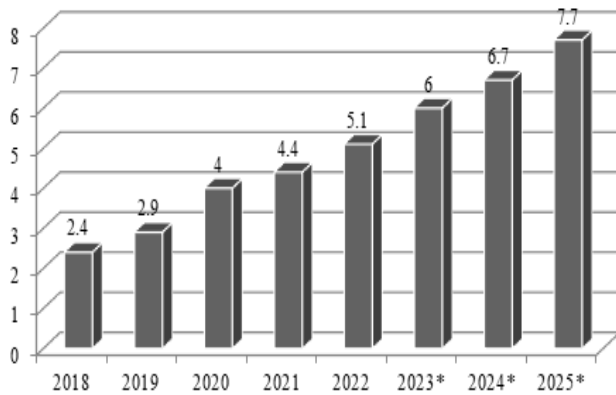


Source: (Statista - thestatisticsportal, n.d.)

The rapid development of e-commerce is a result of the wide spread use of the Internet and the growing popularity of online shopping among consumers. The national e-commerce market has been showing positive dynamics in recent years. For a clearer understanding, let's look at the dynamics of e-commerce in Ukraine in Fig. 3.



**Fig 3: Dynamics of the volume of the domestic e-commerce market and its share in retail trade for the period 2008-2021, 2021-2025 - forecast, (billion dollars US)**

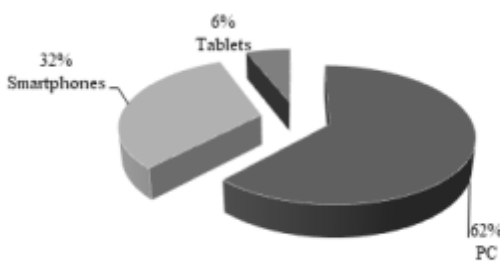


Source: (Statista – the statistics portal, n.d.)

Analysing its dynamics, it can be noted that in 2022, the domestic e-commerce market showed growth to USD 5.1 billion. This is an increase of USD 0.7 billion. USD more compared to the previous year.

It is also worth noting that the vast majority of online purchases (62%) in Ukraine are made from a personal computer (PC). Almost half as many purchases are made on smartphones (32%), and tablets account for only 4% of transactions in this ranking (Fig. 4).

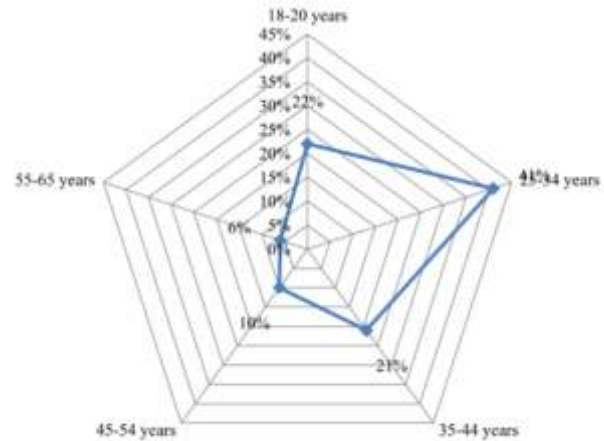
**Fig 4: Breakdown of online purchases by gadget type, (%)**



Source: (Association of Retailers of Ukraine, 2022)

6% of all online purchases are made by people over 55 years old. Other age groups are also represented: 10% of transactions are made by people aged 45-54, 22% by "solvent" young people aged 18-24, and 21% by middle-aged people (35-44). People aged 25-34 prefer online shopping the most (Fig. 5).

**Fig 5: Breakdown of online shoppers in Ukraine by age group, (%)**



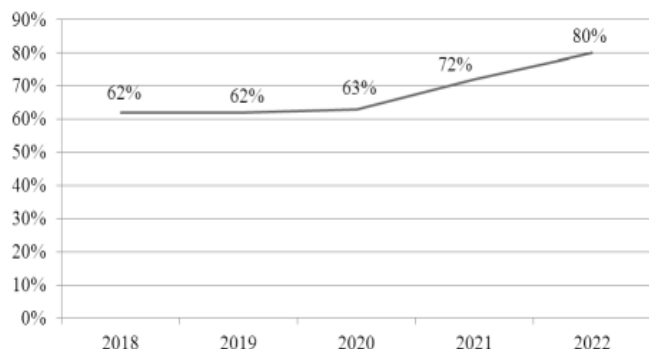
Source: (Association of Retailers of Ukraine, 2022)

In this study, we note that here are several key trends in e-commerce in Ukraine today:

- *growing demand for various product groups.* The most popular product categories are medical goods, clothing and footwear, food and personal care;
- *an increase in the number of companies using online trading.* More companies are switching to e-commerce, indicating a growing awareness of the benefits of this sales method;
- *increased order processing due to competition and growing demand.* Greater competition and growing demand lead to more efficient order processing and improved customer service;
- *growth of categories in the online system.* Expanding the range of goods and services available in the online system increases opportunities for consumers and businesses;
- *development of the courier delivery business.* Courier delivery activity is growing, which is important for ensuring fast and efficient order processing;
- *increase in the number of consumers on the Internet.* The growth in the number of people using the Internet to make purchases indicates the spread of e-commerce among consumers in Ukraine.

Thus, there is currently a steady trend in Ukraine towards an increase in the intensity of Internet use and, as a result, an increase in online commerce, as illustrated in Figure 6.

**Fig 6: Dynamics of Internet use in Ukraine, (%)**



Source: (Association of Retailers of Ukraine, 2022)

This rapid development of e-commerce is a result of the widespread use of the Internet and the growing popularity of online shopping among consumers. The main factors contributing to this development include:

- *Convenience for consumers.* Online shopping allows consumers to make purchases from anywhere and at a time that is convenient for them. This is effective for people with variable schedules and for those who cannot or do not want to visit physical stores;
- *a wide range of products.* E-commerce makes it possible to find and purchase a wide variety of goods and services, sometimes even unusual ones. A large selection helps to meet different consumer needs;
- *Ease of comparison.* The Internet makes it easy for consumers to compare prices, features, and product reviews, which helps them make more informed purchasing decisions. Digital technologies have almost perfect transparency, making it easier to compare prices, service levels, and product performance. It turns out that the digital technologies underlying competitive trends may not be new, but they are used to achieve a new effect (Murphy, 2020);
- *Global access.* E-commerce opens the door to the international market, allowing companies to attract customers from all over the world. In addition, the development of e-commerce platforms is creating a new group of micro-entrepreneurs who can access global markets that were previously unattainable, creating

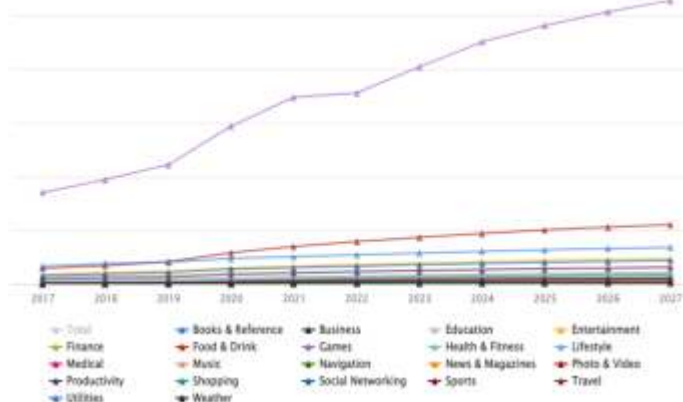
additional jobs in companies (Doroshenko et al., 2023);

- fast delivery. Many online stores offer fast delivery, which makes the shopping experience even more convenient for consumers;

- *development of mobile applications.* Mobile applications allow consumers to make purchases directly from their smartphones and tablets, which helps to increase customer satisfaction and make shopping more enjoyable and easier. Today, mobile apps are used for shopping, communication, gaming, entertainment, work, etc. The number of downloads in 2022 was over 200 billion and this figure is likely to grow.

The share of mobile traffic in 2022 is more than 60%, compared to 10% in 2011 (Fig. 7). Revenue in the mobile app market will reach USD 420 billion in 2021. In 2023, it is expected to increase to USD 542 billion by 2026.

**Fig 7: Revenue in the mobile app market**



Source: (Statista)

It is important to note that today, in addition to national currencies, consumers are increasingly able to pay with digital currencies. Digital currencies are electronic money used as an alternative or complementary currency, often linked in value to national currencies and capable of serving as a basis for exchange (Korobtsova et al., 2023). This type of electronic money has given a new impetus to technological methods of business management. However, it is important to remember that despite the growing popularity and appeal of digital currencies, they can be used to trade illicit goods such as drugs, weapons, hacking tools,

and poisonous substances. On the other hand, the blockchain technology behind these currencies has the potential to revolutionise the financial industry by making transactions faster and more secure, while better information on potential customers can improve credit ratings by better assessing the likelihood of loan repayment. Legal and regulatory frameworks should ensure financial integrity and consumer protection while supporting efficiency and innovation (Suprunenko et al., 2023).

- *changes in innovation.* Digital transformation is driving innovation in the enterprise. The introduction of new technologies, such as artificial intelligence (AI), the Internet of Things (IoT), and blockchain, is enabling businesses to create new products and services. For example, the use of artificial intelligence allows for the analysis of large amounts of data and the making of predictions based on that data. This can be useful for improving management, production, marketing, and customer service processes. IoT allows you to collect data from different devices and combine them to gain valuable insights. This can increase production efficiency, reduce

costs, and create new opportunities for innovative products and services. Blockchain technology can be used to create advanced payment systems, supply chain tracking systems, and to provide transparency and confidence for customers.

In this study, we note that quite often enterprises need the support of the public and investors to develop and implement new ideas and products. In such cases, crowdfunding is a very effective means of raising funds, as it is becoming a universal platform for implementing start-up projects, thanks to the support of civil society and sometimes large investors. Crowdfunding in today's economic instability can become one of the most powerful sources of attracting investment resources (Tkachuk et al., 2022).

- *Improving customer service.* Digital technologies can help businesses improve customer service by providing access to interactive online services and more efficient communication.

The main ways to improve customer service through digitalisation are summarised in Table 5.

**Table 5: Key ways to improve customer service**

No.	Method	Characteristics
1	Interactive online services	Creating interactive online platforms, such as a website or mobile apps, allows customers to interact 24/7. This can include online ordering, bill payment, consultation requests, etc.
2	Effective communication	Using email, chatbots, social media, and messengers to communicate with customers allows you to respond quickly to their requests. This helps to improve the quality of service.  Note that at the moment, chatbots are quite common and developed tools in the field of artificial intelligence. One popular approach to developing chatbots uses machine learning and deep learning. As for alternatives, there are many. Each project can choose the technology according to its needs and requirements. Some alternatives include Rasa, Microsoft Bot Framework, Google's Dialogflow, Botpress, and others. Each of these platforms has its own advantages and limitations, and the choice depends on the specific tasks and needs of your project.
3	Personalisation	The use of analytics and data collection helps to understand the needs of each customer individually. This allows you to create personalised offers and recommendations that increase customer satisfaction
4	Simplifying processes	Automating routine tasks and processes, such as order processing and information issuance, allows you to focus on important tasks and provide faster service
5	Feedback	Gathering customer feedback and suggestions and using them to further improve products and services can improve their quality and customer satisfaction

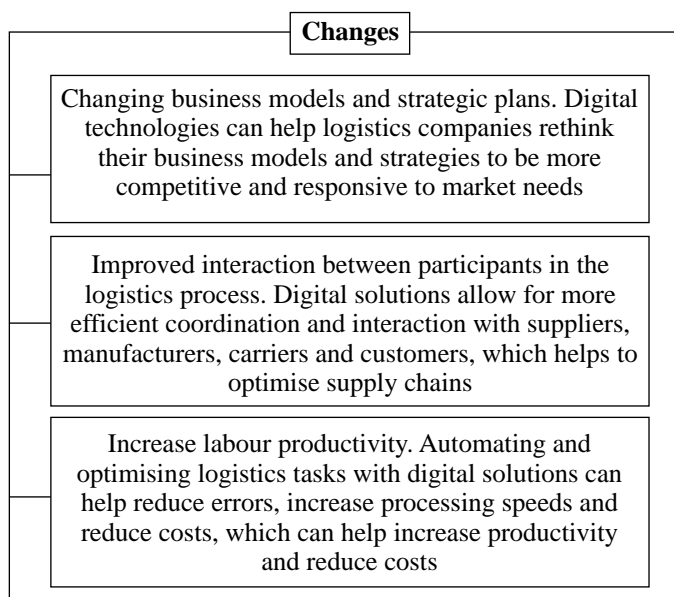
Source: own development of the authors of the article

In general, digital technologies help to make services more convenient and accessible to customers, which can lead to an improved business reputation.

- *changes in the supply chain.* Digital transformation can facilitate supply chain management by providing greater transparency and efficiency in supplier relationships.

Homeniuk (2020) notes that the introduction of modern digital technologies in logistics can lead to a number of positive changes (Fig. 8).

**Fig 8: Positive changes in the implementation of digitalisation processes in enterprise logistics**



Source: (Homeniuk, 2020)

In general, the digital transformation of the supply chain allows enterprises to become more flexible and competitive in the market, providing great business benefits.

Thus, the digital transformation in the economy significantly affects the structure and functions of enterprises, facilitating their adaptation to modern requirements. Through this process, companies will be able to improve production efficiency, increase innovation, and enhance market competitiveness. In addition, digital transformation provides new opportunities for optimising business processes and improving customer service, which will allow businesses to change their structure and functions to achieve greater success in the digital world.

However, as Roieva et al. (2023) rightly points out, despite the fact that digitalisation opens up new business opportunities, it can also cause a decline due to certain obstacles to implementation (Roieva et al., 2023).

Lisova (2019) identifies the main obstacles:

- *rapid technological transformation.* Technological advances are extremely fast, and companies must constantly update and adapt their digital solutions to stay competitive. This can be a challenge for companies, especially those with limited resources;

- *High level of complexity.* Implementing digital technologies can be challenging as it often requires new knowledge, skills, and infrastructure, which can be costly and time-consuming;

- *Changing customer preferences and legal requirements:* Customers may have new service expectations, and legislation may require compliance with new digitalisation standards and regulations, which may require additional efforts and resources (Lisova, 2019).

## Discussion

The study shows that digital transformation is a key factor for the development of modern business and has a significant impact on the economy as a whole. This process reflects general trends in the transition to the digital world, using modern technologies and digital tools to improve the productivity and competitiveness of enterprises. This conclusion is similar to the data presented in the study (Tyshchenko, 2023). The author notes that digital transformation has a major impact on the economy. The study establishes a causal relationship between the pace of digital transformation and the level of use of information and communication technologies. This underscores the need to develop digitalisation programmes in all areas of the economy and life.

The key impact of digital transformation on the management of organisations' business processes is also identified in the study (Struk et al., 2022). The researchers note that the changes brought about by digital transformation can be key to improving business models, performance and competitiveness of enterprises. One of the key elements of digital transformation is an information

database. Information is a valuable resource for any organisation, and proper data management can determine the efficiency of business processes. Digital transformation enables businesses to collect, store, process, and analyse data more quickly and efficiently, which makes it possible to improve decision-making, enhance business processes and create new opportunities for innovation. In addition, the authors of the report note that digital transformation can also lead to changes in business models, allowing enterprises to adapt to changes in the economic environment and increase competitiveness. It can facilitate the automation of processes, the introduction of artificial intelligence, and other innovative technologies that help businesses become more flexible and efficient.

The study Zub et al. (2021) confirms the importance of digital transformation for business and considers the key aspects of this process:

- *customer interaction*. Digital transformation enables us to improve the way we interact with our customers. This includes the use of digital communication channels, data analytics to understand customer needs and behaviour, the creation of personalised services, and the development of customer experience;

- *value proposition*. Digital transformation can help to optimise and improve the value proposition of an enterprise, including the development of new products and services, optimisation of production processes, and improvement of the quality of products or services;

- *managing internal infrastructure*. Digital transformation also affects the internal structure and operations of a business. It can include the introduction of digital tools to manage resources, automate processes, and improve collaboration between employees.

The authors Zub et al. (2021) conclude that digital transformation affects all aspects of business, helping enterprises to become more competitive and adaptive in the modern digital world.

Kravchenko et al. (2023) emphasise the importance of digital transformation for successful business development. They define digital transformation as organisational change aimed at leveraging digital

technologies and business models to improve productivity. This approach to digital transformation reflects the importance of not only adopting new technologies but also changing the organisational culture and management approach. Digital transformation can encompass aspects such as process redesign, increased automation, the use of data analytics, and a change in the mindset of business leaders. By focusing on improving productivity, digital transformation can help businesses create a competitive advantage in the marketplace. It can increase the efficiency of business processes, simplify routine tasks, improve the quality of decision-making, and provide greater flexibility and adaptability in a changing business environment.

Kulynych (2019) emphasises that digital transformation is not limited to changes in the internal processes of enterprises, but also affects their external relations and interaction with other companies and customers.

Among the external changes, the researcher identifies:

- *the size of companies*. Digital transformation may lead to changes in the size of companies. For example, some businesses may increase their global presence through digital solutions, while others may decide to focus on a specialised market;

- *ways of doing business*. Digital transformation can change the way businesses interact with their customers and partners. Electronic communication, electronic payments, and e-commerce can simplify and speed up transactions.

As for internal changes, the following are distinguished

- *changes in organisational culture*. Digital transformation may require changes in the organisational culture of an enterprise, as it often involves a greater emphasis on innovation, speed, and flexibility;

- *changes in employee engagement*. Digital transformation can affect the way employees interact. For example, it can facilitate greater information sharing and collaboration through digital tools and communication platforms.

We conclude that digital transformation is indeed bringing about changes both externally and internally, changing the way businesses relate to customers, partners, and employees.

The conclusion drawn by Timinskyi et al. (2021) confirms

the importance of business process automation in the process of digital transformation. Automation can be both a prerequisite and a key stage for the successful implementation of digital technologies in organisations. Business process automation enables businesses to reduce manual labour, reduce errors and increase efficiency. It enables faster data circulation and processing, which is important in the context of digital transformation. Automated processes can also help implement data analytics, machine learning, and other digital tools to improve decision-making and innovation.

A scientific study Lisova (2019) highlights the business benefits of digital transformation. The author notes that digital transformation can lead to many business benefits, contributing to increased productivity, better customer service, increased competitiveness, and new opportunities for innovation.

The article Mandych et al. (2022) explores the impact of digital transformation and modern communications on sustainable business development. In the context of modern communications and technologies, digital transformation can play an important role in creating platforms for the sustainable development of enterprises. Digital transformation can contribute to sustainable development by enabling more efficient resource management, reducing waste, and increasing productivity. It can help businesses create more environmentally friendly and socially responsible processes and products. Digital transformation can also support sustainable development by facilitating information exchange and collaboration across industries and partners. This can foster innovation and create new market opportunities.

The common thread in all of these articles is that digital transformation has become a key element of modern business and has a major impact on various aspects of enterprise. Successful digital transformation can lead to increased efficiency, reduced costs, and increased market competitiveness.

(2021) emphasise the importance of further research in this area and the development of new models and methods for digital transformation.

Thus, digital transformation is proving to be a key factor for

the development of modern business and has a significant impact on the economy. It helps to automate business processes, improve customer experience, and create new opportunities for innovation and offers a wide range of benefits for business and society.

## Conclusions

Digital transformation in the economy is a key factor in the development of modern business. This process reflects general trends in the transition to the digital world, affecting all sectors of the economy. However, its impact on the structure and functions of enterprises is particularly significant.

*Firstly*, digital transformation changes the structure of the enterprise, focusing it on the use of modern digital technologies and tools. This includes the introduction of artificial intelligence, the Internet of Things, blockchain, and other innovations that expand the range of enterprise capabilities.

*Secondly*, digital transformation stimulates innovation in the enterprise, enabling the creation of new products and services. Artificial intelligence helps analyse large amounts of data and make predictions, improving management, production, marketing, and customer service processes. The Internet of Things allows data to be collected from various devices and combined to provide valuable insights, increasing production efficiency and creating new opportunities for innovation.

*Thirdly*, digital transformation improves customer service by providing access to interactive online services and enabling more efficient communication. This includes interactive online platforms, fast communication via email and chatbots, personalisation and automation of routine tasks.

*Fourthly*, digital transformation facilitates supply chain management by providing greater transparency and efficiency in supplier relationships.

Thus, the digital transformation in the economy is a key factor affecting businesses and determining their success in the digital world. It changes the structure and functions of businesses, making them more adaptable and competitive. Undoubtedly, this transformation requires businesses to be

flexible and willing to learn, but with the right approach, it can lead to significant growth and success in the digital economic environment.

## Limitations

The limitations of this study can be seen in the context of several key circumstances:

1. Limited sample of sources. It is important to note that only 30 sources were selected for the study. This may lead to the omission of important information and different points of view that were not considered in our study.
2. Dynamics of the topic. Since digital technologies are developing very rapidly, the study may become outdated and not consider the latest trends and innovations in this area.
3. Limited scope of the study. The limitations of the text do not convey the full depth of the analysis of various aspects of digital transformation in the economy and its impact on enterprises. A more detailed consideration of each aspect may require a larger volume.

To ensure the highest level of relevance and validity of the data and results, it will be useful to update the study with new sources and information.

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