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# THE IMPACT OF DIGITAL TRANSFORMATION ON INTERNATIONAL BUSINESS

## Valeriia Vorobiova<sup>1</sup>, Oleksii Dzhusov<sup>2</sup>

<sup>1</sup>student of Oles Honchar Dnipro National University <sup>2</sup>Doctor of Economic sciences, Professor, Professor of Marketing and International Management Department, Oles Honchar Dnipro National University

#### Abstract

Digital transformation, which is caused by various factors, is currently a key condition for the successful development of international business in the global economic landscape. Changes in the global marketplace require special attention to the impact of digital technologies on international business.

The purpose of this article is to study and analyse the impact of digital transformation on international business, identify key trends and challenges arising from this process. The article aims to review and systematise information on the impact of digital transformation on international business. It also aims to highlight the key aspects of the digital transformation of companies.

The article is based on the analysis of scientific literature, statistical data and information from international companies that are already implementing digital technologies in their operations. The research methods used include comparative analysis and data synthesis. This study focuses on the impact of digital transformation on international business and provides a detailed analysis of the risks, benefits and challenges that arise in the process of implementing digital innovations in companies' operations. This study aims to reveal the key aspects of digital transformation, including changes in strategies and management processes, technological shifts, and interaction with consumers and competitors in the international market.

#### Keywords

digital transformation, international business, digital technologies, globalisation.

## **Problem statement**

Due to the rapid development of technology in the modern world, digital transformation has become a mandatory stage in the activities of most existing companies. This process involves the introduction of advanced digital technologies and changes in management strategies, which significantly affects all aspects of their operations, including international business. Digital transformation provides international companies with endless opportunities to expand their global presence and increase their competitiveness. On the one hand, this transformation makes it easier for international teams and partners to interact through new communication and collaboration tools. On the other hand, it creates new challenges and risks that require constant analysis and the development of tailored strategies. Addressing these challenges requires not only the introduction of technological innovations, but also the adaptation of organisational culture and strategic management of enterprises to the new conditions of the digital era.

## **Relevance of the chosen topic**

Studying the impact of digital transformation on international business is an important step for its further development in the future, as this topic is becoming increasingly relevant in today's world, which is full of innovations and technological changes. Digital transformation is transforming the way businesses operate and interact with customers, partners and competitors. It affects strategies, operational processes, human resources policies, and all aspects of companies' operations on a global scale. The main purpose of these studies is to understand and analyse the impact of digital transformation on the business environment and to determine which companies are able to adapt and implement new digital practices and which may face difficulties. Studying the risks, benefits, challenges and opportunities that accompany this process helps to develop appropriate strategies and tools for effective digital transformation. In addition, these studies reveal the importance of digital transformation as a driver of global economic growth and development. They show how digital transformation can help international companies become more competitive in global markets, expand their global footprint, and create new opportunities for development and cooperation in the international community.

There are several key factors that underline the need for an in-depth analysis of this topic. The rapid development of technologies, such as artificial intelligence (AI), data analytics, cloud computing, the Internet of Things, etc., opens up new opportunities for businesses around the world and requires them to adapt to all changes to maintain their competitiveness in the market. Globalisation processes, which are primarily characterised by the growing interdependence of national economies and the intertwining of socio-economic processes in different regions of the world, are driving firms to seek better business conditions and driving their transformation. The need for digital transformation has also been accelerated by the Covid-19 pandemic, during which companies were forced to quickly adapt to remote work and changes in consumer attitudes, which highlighted the importance of digital solutions for further business sustainability and development. Competitive pressure in today's international market is a significant driver of digital transformation. In an intensely competitive environment, companies are forced to constantly look for innovative solutions and improve their business processes. With the increasing importance of information, the ability to collect, process and analyse data faster and better is crucial for companies to survive in the market. Data is becoming the most valuable asset for business in the modern world.

### Analysis of recent research and publications

The essence of the concept of "digital transformation" has been studied by many well-known scholars, including D. Bowersox, G. Westermann, K. Dahlman, T. Ochs, U. Riemann, K. E. Bowe, S. Scheibl, S. Brennen and D. Kreis. According to D. Bowersox, the main feature of digital transformation in international business is the restructuring of all its internal operations to increase the level of competitiveness and increase the potential of the enterprise by automating business processes; this means that companies must introduce new digital technologies and tools that allow them to optimise internal processes, reduce manual labour and increase productivity (Lisova R. M., 2019). Researcher G. Westermann defines digital transformation as the use of new technologies and all existing digital tools to improve the functioning of an enterprise (BMWi, 2016). K. Dahlman associates the concept of "digital transformation" with the combination of the latest technologies with economic science using digital tools. According to the researcher, it is the physical and information systems that together determine the processes called digital transformation (Dahlman C., 2016). In their works, T. Ochs and U. Riemann describe digital transformation as the introduction of digital technologies and modern tools into the activities of companies by converting all data and processes into digital format (Ochs T., Riemann U. A., 2018). Researchers C. E. Boueé and S. Schaible are convinced that digital transformation is a series of consistent changes in all existing sectors of the economy in order to adapt their subjects to the new conditions of the digital world (Boueé C., Schaible S.). S. Brennen and D. Kreis define digital transformation as the process of converting data into digital form (S. Brennen. Digitalisation and Digitisation).

It is important to emphasise that digital transformation requires not only technical changes, but also changes in corporate culture and staff mentality. The company's staff must be ready to implement new technologies and actively participate in this process. Such transformation can significantly improve the efficiency and innovation of international companies and contribute to their successful development in the global market. The large number of academic papers on this topic clearly demonstrates the importance of studying digital transformation and its impact on international business. This is confirmed by the great interest that scholars and practitioners show in this issue.

#### The purpose of the research

The purpose of the article is to study the impact of digital transformation on the processes, strategies and models of international business in the context of globalisation and growing competition in international markets.

The objectives of the article are to analyse the main aspects of digital transformation and its impact on international business; to identify the key factors of successful digital transformation for international companies; to identify possible challenges and constraints faced by enterprises in the course of digital transformation; and to study the prospects for the development of international business in the context of digital transformation and expansion of global markets.

#### The main part

The definition of the concept of "digital transformation" may vary depending on the personal views of researchers and the specifics of the industries in the context of which it was considered. However, the general content of existing definitions can be described as follows: digital transformation is the process of implementing digital technologies and innovations to transform a company's business models, operational processes, products and services to improve its efficiency and competitiveness in the market. Digital transformation is marked by the active use of modern digital solutions, such as artificial intelligence, the Internet of Things, data processing and process automation, to achieve the organisation's strategic goals. This process can cover all aspects of business, from customer interaction to optimising internal operations.

The main components of an organisation's digital transformation are shown in Figure 1.

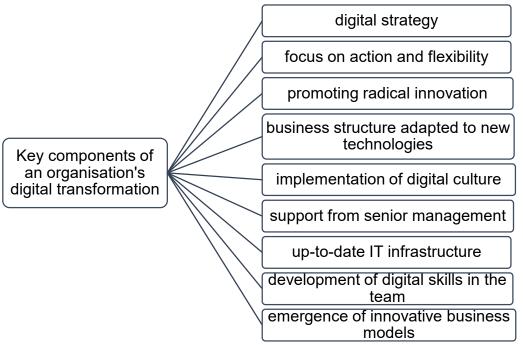


Figure 1. The main components of digital transformation of an organisation Source: compiled by the authors on the basis of (Smolyar L. G. b.d.)

The development of digital technologies has a significant impact on businesses in all aspects of their operations. These technologies are transforming the way businesses do business and opening up new opportunities for enterprises, but they also pose certain challenges, primarily related to the need to adapt to the rapid pace of change and security issues. The development of digital technologies allows for the automation of many routine tasks and processes in business, opens up new ways of interacting with customers, provides many effective tools for improving analytics, accelerates decision-making and helps reduce the cost of business operations.

Digital technology has a significant impact not only on the internal processes of national businesses, but also on international businesses and all aspects of their operations. In the era of globalisation and the digital revolution, international business is becoming extremely sensitive to the impact of modern technologies and innovations.

The transformations that accompany digital transformation should be considered in the context of international business, in particular their impact on global operations, international relations and competitiveness in the global market. International business is defined as a set of business operations that involve crossing national

borders and moving goods, services, capital, and employees; transferring technologies, information, and data; and managing performers (Robock S.H., Simmonds K.).

International business differs from the national business by the following characteristics:

- use of different currencies;
- the presence of peculiarities in the legal system;
- the presence of certain cultural differences;
- diversity of the composition and volume of available resources (materials of presentations from the University of Applied Sciences Mittweid (Germany) in the discipline "International Management", 2023).

The main characteristic features of international business that can be distinguished are profit-making, business transactions between companies from different countries and the use of the benefits of international business operations (materials of presentations from the University of Applied Sciences Mittweid (Germany) in the discipline "International Management", 2023).

Conducting international business has its own significant benefits, which are related to higher profits. They are provided by the following factors:

- 1) access to foreign labour markets (with different prices and qualifications);
- 2) access to new deposits of minerals and raw materials;
- 3) access to new markets;
- 4) increasing production volumes and reducing the cost of goods produced;
- 5) reduction of currency risks (Hutsaliuk O. M., Cherevatenko V. A., 2015).

Today, there are various types of international business based on various forms of trade, investment and other types of cooperation between countries. All of them are shown in Figure 2.

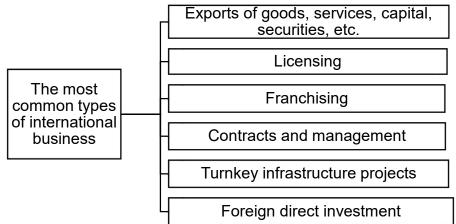


Figure. 2. The most common types of international business Source: compiled by the authors on the basis of (Hutsaliuk O. M., Cherevatenko V. A., 2015).

The development of international business is a complex historical process that has taken place over many centuries. The famous American researcher Richard Robinson proposed a periodisation of the development of international business, which included the stages shown in Figure 3.

	0	$\mathcal{O}$		
$\geq$	The commercial era		1500-1850	>
$\sum$	The era of expansion		1850-1914	>
$\sum$	The era of concessions		1914-1945	$\geq$
$\sum$	The era of nation states		1945-1970	$\supset$
$\sum$	The era of globalisation		since 1970	$\supset$

Figure 3. Periodisation of international business development

Source: compiled by the authors on the basis of (Materials of presentations from the University of Applied Sciences Mittweid (Germany) in the discipline "International Management", 2023). International business, thanks to its global presence and intercontinental relations, plays a significant role in the formation and functioning of the world economy. This sphere of business activity serves as a catalyst for interaction between different regions of the planet, creating a powerful impetus for economic development on a global scale. International companies create a global network of trade relations that facilitates the exchange of various goods and services between different countries. This interaction stimulates a more efficient use of resources that become available to different markets, contributing to the production and consumption of goods and services around the world. Open international relations also expand the geography of production and trade, which affects the structure of employment and contributes to the creation of new jobs in different parts of the world.

International business makes new technologies and innovations more accessible to global consumers. This cooperation encourages companies to look for new solutions, develop advanced technologies, and facilitates the dissemination of knowledge around the world. In addition, international business influences the development of the global trading system and supports rules and standards that facilitate trade and reduce barriers to entry. International business not only increases the flow of goods and services between countries, but also raises the standard of living of the population by creating access to a variety of goods and services. This helps to empower consumers and improve the comfort and quality of life of people in different countries.

Globalisation processes, competitive pressure and new realities caused by the COVID-19 pandemic have significantly accelerated the digital transformation of businesses around the world. Digital transformation is the transition of a company to digital business by changing its organisational culture and introducing modern information technologies that expand the boundaries of the organisation (Chmeruk G., 2019, p.165). Digital technologies are changing the way companies interact in international markets, creating new opportunities for effective business across borders, and allowing them to enter new markets faster and more efficiently. They help businesses to establish international supply chains, simplify the export and import of goods and services, and increase their overall competitiveness in the global marketplace.

In today's world, digital transformation plays a crucial role in the operations of international businesses. On the one hand, digital technologies are transforming international business, providing it with a new level of flexibility, accessibility and innovation. They allow companies to more easily adapt to global changes, respond to changing market conditions and increase their international competitiveness. Digital tools help businesses optimise their processes, increase productivity and expand their geographical reach.

On the other hand, this transformation poses a number of challenges for international businesses. The extremely fast pace of technological change may require significant investments in upgrading hardware and staff training. In addition, changes in digital legislation may require companies to comply with new rules and standards, which may require additional legal and regulatory compliance efforts.

For large corporations with international operations, the process of digital transformation may require a review of corporate culture and management practices. It is important to remember that digital transformation is not just about implementing technology; it involves changes in approaches to business strategy and stakeholder engagement.

Digital transformation opens up many opportunities to improve communications and connections in international business. One of the key benefits of this transformation is the ability to improve communication not only within companies, but also in their interactions with partners and customers. To achieve this goal, modern technologies and tools are being introduced to ensure more effective communication and cooperation. One of these tools is video conferencing. They allow you to hold meetings and conferences online while maintaining high quality communication even over long distances. This is especially useful for international companies with branches and partners in different countries. In addition, shared work platforms and collaboration tools allow employees to work on projects and tasks in real time, even if they are located in different geographical regions. This helps to increase productivity and ensures that teams work more efficiently. In particular, companies are actively using web portals and mobile applications to improve customer service and partner interaction. This allows customers to conveniently receive information, place orders and monitor the status of services or goods. Partners can easily exchange data, documents and information through these platforms, which simplifies the process of interaction and collaboration.

Digital transformation is prompting international companies to change their business models and strategies, which allows them to increase their competitiveness in the market. Due to the rapid development of digital technologies, existing business models are becoming obsolete and are being replaced by new ones (Lisova R. M., 2019). A business model is a concept that outlines the company's activities and how it creates and provides value for customers. With a business model in place, a company can describe its business with phrases such as "what it does", "what it offers" and "how the offer is made" (Chmeruk G., 2016).

Some researchers have identified three ways in which digitalisation can affect the change in business models:

- 1) Optimisation of existing business models;
- 2) Transformation of existing business models;
- Development and implementation of new business models (Bouwman H., Nikou S., Molina-Castillo F. J., de Reuver M., 2018).

Digital transformation can occur only at the level of individual elements of the business model or contribute to its transformation as a whole. The degree of digital transformation includes consistent (marginal) or radical (fundamental) changes in the company's business model (Lisova R. M., 2019).

The ability of companies to operate successfully and for a long time in the market depends on how efficient and well-thought-out their business models are in terms of creating customer value. The use of digital technologies and new analytical methods creates new opportunities for the operation and development of business models.

Digital transformation is helping businesses to increase their competitiveness and optimise production through the use of artificial intelligence and a large number of tools for process optimisation and data analysis. Digital technologies allow for the automation of many production processes, which leads to lower costs and higher productivity. Data analysis using digital tools helps to make faster and more informed decisions and enables more accurate forecasting of market trends.

Despite all the benefits of digital transformation, it also poses certain challenges that companies need to consider. The growing amount of digital data creates cybersecurity threats. Businesses need to invest significant resources in developing robust data protection mechanisms and creating special networks to avoid cyberattacks. Digital transformation may also require rapid changes in staff competencies and skills. Companies should provide timely training and retraining opportunities for employees to successfully implement digital initiatives in their operations. Companies that are able to adapt to the new digital environment have a chance to maintain and even increase their competitive advantage in global markets.

For a deeper understanding of the importance of a competent digital transformation, it is worth looking at examples of international companies that have successfully implemented digital technologies in their business processes and exploring the strategies and tools they use to achieve success.

Amazon is known worldwide for its successful digital transformation, which has allowed it to become one of the largest international online trading platforms in the world. Its innovations include using artificial intelligence to personalise product recommendations, expanding its cloud computing services to provide faster customer service, and introducing automated logistics to optimise deliveries. In addition to the successful use of digital technologies for its own business, Amazon provides services for digital transformation through the implementation of the AWS cloud developed by the company. For this purpose, AWS Professional Services was created - a global team of experts that helps companies achieve the desired business results when using the AWS cloud. The organisation works together with the staff of the companies they provide services to and the members of the AWS partner network they choose to implement corporate cloud computing initiatives. AWS Professional Services also provides focused guidance through a global specialised practice that spans solutions, technologies and industries (Cloud Professional Services - Cloud Computing Consultants - AWS., n.d.).

Many international banks are implementing digital transformation to improve customer service and create a more robust security system to protect personal data and confidential information. International banks use cloud technologies to store and analyse large amounts of data, and develop mobile applications and online services to ensure quick and convenient access to banking services for customers.

International companies use a variety of strategies and digital tools to facilitate transformation processes. The introduction of cloud computing for data storage and processing and the integration of artificial intelligence into business processes allows companies to scale their operations internationally. Another step that contributes to the success of digital transformation is the partnership of companies with innovative start-ups. This type of cooperation enables companies to implement new ideas and technologies in their operations much more easily and efficiently and to stay ahead of the competition in terms of digital transformation.

## Conclusions

The need to adapt to the new realities caused by the rapid development of digital technologies, globalisation, increasing competitive pressure, the growing role of information and the COVID-19 pandemic has made digital transformation a mandatory stage in the activities of all existing companies. Digital transformation enables them to remain competitive in a changing technological environment. In order to continue to operate successfully in the post-pandemic era, a company must ensure rapid adaptation to all the changes taking place in the global market.

Digital transformation can be defined as the process of introducing digital technologies and innovations to transform a company's business models, operational processes, products and services to increase its efficiency and improve its competitiveness in the market. Digital transformation, which is based on the introduction of the latest digital technologies and changes in management approaches, is dramatically affecting all aspects of both national and international business. Although digital transformation is simplifying and providing many benefits to international companies, it poses many challenges to businesses that require constant analysis and search for solutions. These challenges are primarily related to data security, adaptation to changes in legislation and the need to retrain staff.

Digital transformation is driving changes in business models and prompting companies to seek new strategies. Transformation processes can be limited to the level of individual elements of the business model or contribute to its complete transformation.

The introduction of the latest technologies will help save time and increase the efficiency of all business processes. International companies are successfully implementing digital transformation, which involves restructuring all operations, introducing innovations, and using new tools such as artificial intelligence (AI), cloud computing, the Internet of Things, etc. This allows them to maintain their market position and stay ahead of the competition by leveraging the benefits of digital technologies.

The structural changes in business brought about by digital transformation open up new opportunities and challenges that need to be explored and understood to improve the efficiency and competitiveness of international companies. Researching this topic helps to unlock the potential of modern technologies and develop strategies for their successful implementation, which is becoming a key factor in the struggle for leadership in global markets. Thus, the study of digital transformation has become not only relevant but also an integral part of international business development.

The main areas of further research into the impact of digital transformation on international business will include analysing the pace, trends and prospects of digital technologies in the context of international companies, developing tools for better data protection and creating a more reliable information security system.

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