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## THE ROLE OF DIGITAL TRANSFORMATION IN THE FORMATION OF MANAGEMENT DECISIONS IN BUSINESS

*The article discusses the importance of digital transformation in the formation of management decisions in business, which has become critical for the modern business environment due to its impact on the decision-making process. Digital transformation encompasses the integration of digital technologies into all areas of management, which allows enterprises to increase efficiency, flexibility and competitiveness. The main goal of digital transformation is to optimize business processes and improve customer experience through the use of the latest technologies, such as artificial intelligence, data analytics, and automation. One of the key features of digital transformation is the increase in the amount of data available for analysis. This enables managers to make more informed decisions based on evidence instead of relying on intuition. Business intelligence tools and decision support systems are becoming indispensable for quick and accurate analysis of information. In addition, digital transformation helps automate routine processes, freeing up time for strategic planning and decision-making. Managers can focus on important aspects of management, such as developing new products and services or improving customer experience. At the same time, digital transformation also brings certain challenges. Changing corporate culture and training employees on new technologies can be a difficult task. Data security issues are also becoming critical in the face of growing cyber threats.*

**Keywords:** management decisions, digital transformation, strategic management, management decision-making, business.

**JEL classification:** D 81, O 33.

## РОЛЬ ЦИФРОВОЇ ТРАНСФОРМАЦІЇ ПРИ ФОРМУВАННІ УПРАВЛІНСЬКИХ РІШЕНЬ В БІЗНЕСІ

*У статті визначено роль цифрової трансформації при формуванні управлінських рішень в бізнесі, яка стала важливою для сучасного бізнес-середовища через активний вплив на процес прийняття управлінських рішень. Цифрова трансформація представлена інтеграцією цифрових технологій у всі аспекти управління, що дозволяє підприємствам підвищувати ефективність, гнучкість і конкурентоспроможність. Метою цифрової трансформації виступає оптимізація всіх бізнес-процесів та удосконалення взаємодії з клієнтами через використання новітніх технологій, таких як штучний інтелект, аналітика даних та автоматизація. Однією з ключових особливостей цифрової трансформації є збільшення обсягу даних, доступних для аналізу. Це дозволяє менеджерам приймати більш обґрунтовані рішення на основі фактичних даних, а не застосовуючи власну інтуїцію. Інструменти бізнес-аналітики та системи підтримки прийняття рішень стають незамінними для забезпечення швидкого та точного аналізу інформації. Крім того, цифрова трансформація сприяє автоматизації рутинних процесів, що звільняє час для стратегічного планування та ухвалення рішень. Менеджери отримують можливість зосередитися на важливих аспектах управління, таких як розвиток нових продуктів і послуг або вдосконалення клієнтського досвіду. З іншого боку, цифрова трансформація також приносить виклики. Необхідність змінити корпоративну культуру та навчити співробітників новим технологіям може бути складним завданням. Крім того, питання безпеки даних стають критично важливими в умовах зростаючих кіберзагроз. Отже, роль цифрової трансформації в управлінських рішеннях є багатогранною. Вона не лише підвищує ефективність і швидкість прийняття рішень, але й вимагає від*

менеджерів нових компетенцій і адаптації до швидко змінюваного середовища. Успішна реалізація цифрової трансформації може стати вирішальним фактором для досягнення конкурентних переваг у сучасному бізнесі.

**Ключові слова:** управлінські рішення, цифрова трансформація, стратегічне управління, прийняття управлінських рішень, бізнес.

**Statement of the problem.** The realities of today indicate changes at the global level in the development of modern business. Digital transformation is becoming the main reason for such changes due to rapidly changing market conditions, technological development and growing competition. The digital world poses new challenges for businesses in terms of adapting to unusual operating and decision-making conditions. The changes concern not only the business model but also the approach to doing business. By adopting modern technologies, businesses are able to reduce costs and improve the effectiveness of management decisions, as well as to enter new markets.

However, there are problems that impede modern business development, including infrastructure limitations, low levels of digital literacy, and a lack of sufficiently qualified personnel. Therefore, the study of digital transformation is extremely timely and relevant in the context of helping businesses to carry out urgent transformations.

In addition, the state is increasingly pursuing a policy of supporting the digital transformation of business through subsidies, benefits, and grants aimed at introducing new technologies by business representatives. Therefore, the study of trends in business digitalization is a priority due to the opportunity to find the most effective strategies for supporting and developing business in the new business environment. However, the lack of awareness among local business representatives hinders this process of optimizing established business processes.

In addition, the digital transformation of business in today's environment is very important for ensuring a decent level of competitiveness in the market. The study of these processes is relevant, as it allows to identify the main factors that will contribute to the economic development of business.

Considering the impact of digital transformation on management decisions in business, it can be argued that the management decision process is undergoing optimization changes, and the result itself is expected to increase efficiency. The use of the latest technologies, such as big data and artificial intelligence, allows businesses to make more informed decisions, forecast demand, and adapt strategies to a changing market [1][2]. It also helps to create new business models and improve customer experience [3][5]. However, to successfully implement transformations, companies face challenges, such as financial constraints and the need for skilled professionals [4][6].

**Analysis of recent research and publications.** In recent years, domestic and foreign scholars have devoted many publications to the study of the digital transformation of enterprises. Among them, it is advisable to highlight the publications of such scholars as V. Heiets, P. Hryenko, O. Hudz, I. Dernova, S. Kolyadenko, S. Kovalenko, and others. These scholars have made a significant contribution to the formation of theoretical knowledge and practical skills in shaping the concept of enterprise development

strategy and its strategic management. Given the significant developments, in our opinion, the following approaches to the formation of a strategy for sustainable development of enterprises through the digital transformation of business processes in the digital economy remain relevant for further research.

*Highlighting of previously unresolved parts of the overall problem.* It is necessary to focus on training and education of personnel and ensuring security in the context of the growing role of digital transformation in shaping business management decisions. This will help to improve and accelerate the process of making management decisions in the business environment, thereby contributing to cost reduction, increased competitiveness and access to new markets.

**Objectives of the article.** To determine the role of digital transformation in the formation of management decisions in business. The study uses a qualitative research approach that involves analyzing existing scientific literature, industry reports and case studies of enterprises undergoing digital transformation. The key objectives include identifying the critical role of transformational changes due to the increasing role of digital technologies in the business environment, as well as proposing to promote the development of digital culture to achieve digital maturity and competitive advantage. The purpose of the article is to analyze the impact of digital transformation on business management decisions.

**Summary of the main result of the study.** The introduction of digital technologies can bring modern business to a qualitatively new level of management. In the near future, all business processes and interactions between business entities and their counterparties will undergo significant changes, adapting to the requirements of digital technologies.

What benefits will existing and well-established business processes receive as a result of digital transformation? It is worth noting that all routine tasks are subject to automation, which reduces the time to complete a task and makes it possible to process the result of the operation. This will help to increase the efficiency of the management function. In addition, the ability to conduct in-depth analysis, having access to analytical data, makes it possible to make more informed decisions, which also indicates an increase in the efficiency of management decisions. In this way, digital transformation plays an important role in shaping the modern business environment, which significantly changes not only the technologies used but also the management decision-making process itself. As for the role of a person in management, it is also undergoing significant changes caused by the introduction of modern technologies, automation of processes and changes in the requirements for managerial competencies.

With the help of new tools, it becomes possible to automate routine tasks previously performed by employees:

data processing, information analysis, and even the development of proposals for decision-making. As a result, the role of a manager is changing and evolving from a performer of routine tasks to a strategic thinker who uses analytical data to make informed decisions. That is, managers in the modern world of digital transformation perform more advisory services, have the ability to evaluate the results of automated systems, and make decisions based on the data obtained.

With the development of technologies such as artificial intelligence and machine learning, managers need to acquire new skills to use these tools effectively. This includes the ability to interpret analytical data, understand the algorithms used to process information, and apply the results to their own business practices. Thus, the role of a person in the decision-making process becomes more analytical and strategic.

Digital transformation requires managers to be more flexible and adaptive to a rapidly changing business environment. Modern technologies allow for a quick response to market changes, which requires managers to be able to make decisions under uncertainty. This means that managers must be prepared for rapid changes in management strategies and tactics.

Digital technologies not only automate processes but also create new opportunities for collaboration between people and systems. Managers need to learn how to work effectively with digital tools, from decision support systems to collaboration platforms. This means that the human

role is not only to make decisions, but also to interact with technology to achieve better results.

Although digital technologies can perform many tasks automatically, the human factor remains critical in ensuring ethics and responsibility in decision-making processes. Managers must consider the ethical aspects of using data and technology and be prepared to take responsibility for the consequences of their decisions.

Digital transformation is significantly changing the role of humans in the management decision-making process. Managers are becoming strategic thinkers with an emphasis on analytics and adaptability. They need to have new skills to work with digital tools and remain responsible for the ethical aspects of their decisions. This new approach to management opens up new business opportunities, but it also presents managers with new challenges that require continuous learning and development. Among the most important challenges is the issue of security.

The quality, accuracy and security of data in the management decision-making process cannot be overemphasized. Data quality and accuracy are crucial to ensure adequate understanding and reliability of the conclusions drawn. Security is also a vital aspect, as data breaches or theft can jeopardize the accuracy and confidentiality of management decision-making processes [7, P. 112]. Given the dynamism of the digital revolution, businesses need to pay attention to the development of secure measures. The most common problems faced by users of modern digital tools are summarized in Table 1 [8-10].

Table 1

**Main types of malware and their characteristics**

Malware name	Characteristics	Threat	Consequences
Viruses	Programs that infect computers and other devices by spreading over networks.	Electronic	Data destruction, system blocking, theft of confidential information.
Trojan horses	Programs that masquerade as ordinary files and provide remote access to attackers.	Downloads	Leakage of confidential information, control over the device.
Phishing	Attacks that attempt to obtain confidential information by deceiving users.	Fake	Theft of passwords, credit card numbers.
DDoS attacks	Attacks that overload the system with traffic, blocking access to resources.	Malicious	Shutting down websites and services (for example, the attack on Twitter in 2016).
Infrastructure attacks	Attacks on critical systems and infrastructure of organizations.	Targeted	Disruption of critical systems, financial losses.

Source: compiled by the authors

Thus, despite the obvious benefits of digital transformation of management and business processes, it is still the responsibility of senior management to develop a strategic approach in a timely manner, allocate resources for staff training and education, and pay full attention to security measures. Such approaches will allow businesses to take full advantage of digital technologies and maintain their competitiveness in the face of rapid change.

It is also important that when applying digital tools in the process of forming management decisions, the stage of the management decision-making process must be taken

into account. If this is the initial stage, where the problem is formulated, artificial intelligence is most often used, which makes it possible to analyze and characterize the environment (external and internal) of the business enterprise.

At the stage of forming goals and strategies, intelligent expert decision support systems for production management based on big data analysis and the use of specialized knowledge bases that can present the dynamics and deviations in the development of the enterprise can be used to solve a particular problem [7].

When developing alternative solutions, big data analysis is used to identify alternatives and assess the consequences of implementation. The psycho-emotional factor of a person in the formation of a management decision is not excluded and can also be used in conjunction with the opportunities provided by information technology.

The stage of implementation of management decisions requires tools such as business intelligence and advanced

Big Data analytics applications. The main characteristics of digital tools that should be used at each stage of management decision-making are presented in Table 2, which demonstrates how digital transformation affects various aspects of management decisions, emphasizing the importance of integrating the latest technologies into business processes to improve management efficiency, and includes key stages of the decision-making process.

Table 2

**The impact of digital tools on management decisions**

Benefits	Characteristics	Impact on management decisions	Stages of decision-making
Data	Digital transformation provides access to large amounts of data through analytical tools.	Increases the accuracy and speed of decision-making based on evidence.	1. Setting goals 2. Identifying the problem 3. Obtaining the necessary information
Process	Automation of routine tasks frees up time for strategic planning.	Allows managers to focus on important aspects of management.	4. Consideration of possible alternative solutions 5. Making a decision
Communication	The use of digital platforms improves interaction between teams.	Facilitates faster information sharing and coordination, which is critical for decision-making.	6. Development of measures to implement the decision 7. Distribution of responsibility
Flexibility	Digital transformation allows for faster response to changes in the market environment.	Managers can adapt their strategies in response to new challenges	8. Evaluation of the decision
Artificial	Using AI to analyze data and identify patterns.	Improves the quality of decisions by allowing managers to make informed decisions based on in-depth analysis.	
Data	The growing importance of ethical aspects of data and technology use.	Managers must consider the ethical implications of their decisions and ensure data security.	

Source: compiled by the authors

**Conclusions.** To summarize, the role of digital transformation in management decisions is multifaceted. It not only increases the efficiency and speed of decision-making, but also requires managers to acquire new knowledge

and adapt to a rapidly changing environment. And the timely and effective implementation of digital transformation is becoming a crucial factor in achieving competitive advantages in the modern business world.

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