

## THE IMPORTANCE OF DIGITAL TRANSFORMATION FOR BUSINESS DECISION-MAKING IN ORGANIZATIONS

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**Abstract:** *In today's rapidly changing business environment, digital transformation is emerging as a key success factor for organizations of various sizes and organizational structures. This paper explores how digital transformation affects the business decision-making process within organizations, highlighting its importance for improving efficiency, accuracy and speed in decision-making. Through an analysis of existing literature and case studies, the paper examines in detail various aspects of digital transformation, including the integration of advanced technologies, as well as the changes these technologies bring to organizational structures and cultures. The research focuses on concrete examples of how technological innovations enable leaders and managers to make reliable and timely decisions, while increasing transparency and employee engagement. The paper also highlights how digital transformation contributes to the development of agile and adaptable organizational models, which enables organizations to respond more effectively to market changes and challenges. Through the synthesis of research findings, the paper concludes that digital transformation is not only imperative for maintaining competitiveness, but also a key aspect for making innovative business decisions. The ultimate goal of this research is to provide insight into how organizations can strategically approach digital transformation in order to maximize their potential for making better business decisions, while simultaneously increasing their efficiency and competitiveness in the market.*

**Key words:** *digital transformation, decision-making efficiency, technological innovation, competitiveness.*

**JEL classification:** *M21*

### 1. INTRODUCTION

In the modern business environment, digital transformation has become a key driver of success and innovation. During the last decades, the development of information technologies has significantly influenced the way organizations collect, analyze and use data in decision-making. Through the effective use of digital tools and technologies, such as big data analytics, artificial intelligence and cloud computing, organizations are able to make more informed and accurate decisions. Digital transformation implies the application of digital technologies in all aspects of business, which leads to fundamental changes in business processes and the way of delivering value to clients. Digital transformation does not mean only the implementation of new technologies, but also a profound change in the way organizations function, communicate and make decisions. With the ever-increasing volume of data, the advancement of analytical tools and the application of artificial intelligence, the decision-making process becomes faster, more accurate and more strategically focused. Digital transformation not only enables companies to adapt to market trends, but also improves internal efficiency, reduces costs and accelerates business processes. By relying on data and analytics, organizations can improve their decision-making capabilities. Automation and

digital tools reduce risks, while transparency and availability of information increase decision-making efficiency at all levels. This process goes beyond the technical aspects - it also represents a cultural change, which requires adaptation of employees and a carefully designed strategy in order to fully exploit the potential of digital technologies.

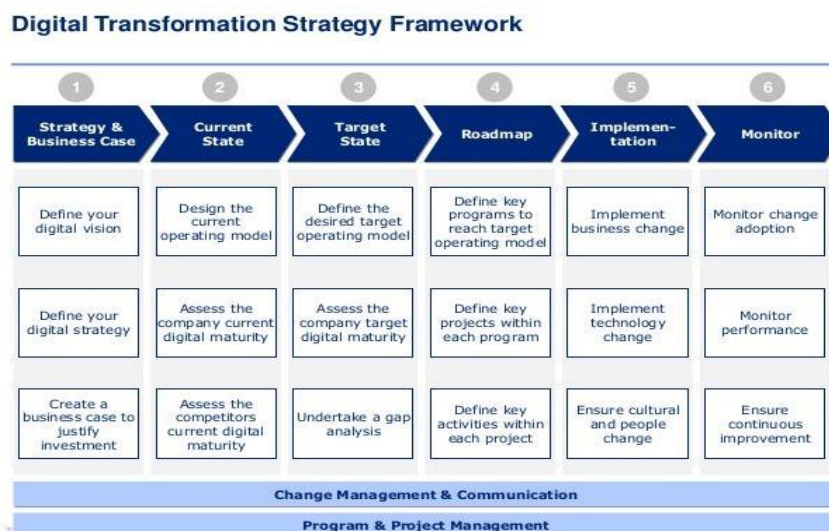
The integration of digital technologies into the business decision-making process enables organizations to increase their resistance to change, improve their competitive position on the market, and more effectively face the complex challenges of the modern business environment.

Digitization has enabled companies to respond to challenges in business, and through the application of digital technology to increase efficiency and productivity in work, with the possibility of applying innovations different from the competition (Erceg & Đalić, 2023), thus influencing the shaping of business models and strengthening cooperation between different participants in all social sectors (Shallmo & Williams, 2017). This is important for organizations operating in markets where the development of new ways of performing business operations is one of the basic characteristics of modern business, taking into account their innovation and ability to adapt to technological challenges (Čelik, 2019). Digitization of business and the application of digital technology have a positive effect on the efficiency and profitability of businesses in Bosnia and Herzegovina, as well as society in general.

## 2. METHODOLOGICAL APPROACH FOR THE IMPLEMENTATION OF DIGITAL TRANSFORMATION

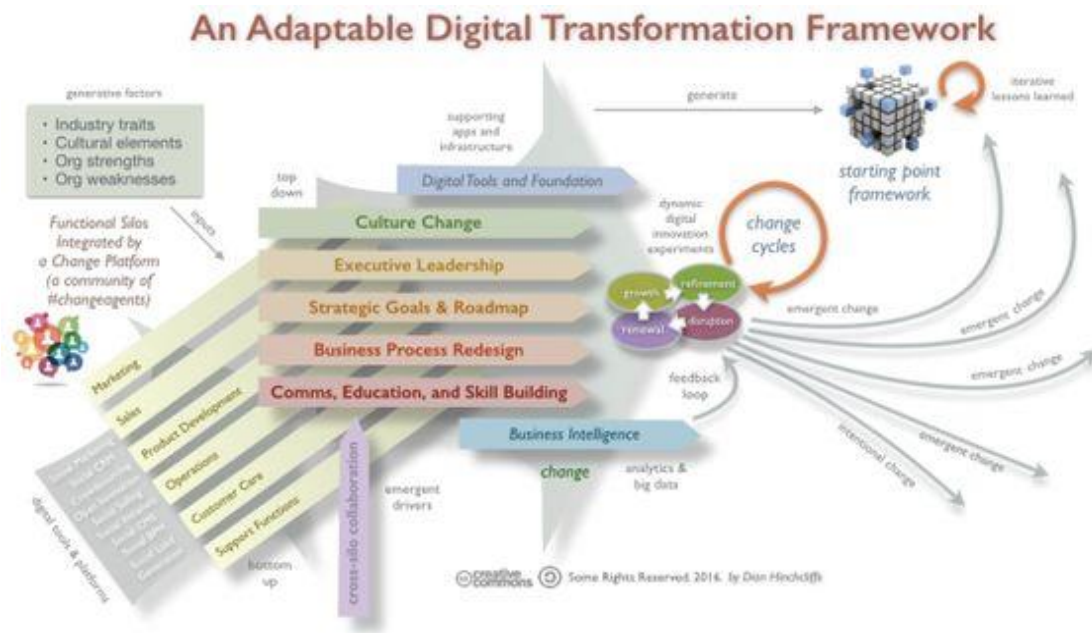
When digital transformation is viewed as a process that not only transforms companies, but also enables the development and definition of new products and services, certain common characteristics can be identified in the area of the Western Balkans despite the differences in methodological and project approaches. The usual practice in the development of smart solutions in this region implies the absence of a detailed prior analysis, project plan or solution specification, as well as their optimization according to the specific needs of users (companies). Instead, the selected partner often implements the solution so that during the project realization process, it simultaneously conducts analysis and creates project documentation. Within this practice, the implemented solutions are limited to the areas of expertise covered by the selected partner (Dokic & Stojković, 2020). Project documentation, including the definition of requirements and acceptance criteria for solutions, is rarely clearly defined and precise in advance. In practice, it is most often coordinated with the user with the engagement of consultants and/or business analysts during the implementation of the project. The process of development and implementation of a digital solution usually leads to the optimization of business processes in companies and organizations where the solution is applied, as well as to the change or establishment of new procedures. In other words, the solution itself functions as a tool for additional process optimization.

Figure 1: Mc Kinsey framework for digital transformation



Source: (ICV, 2019)

**Figure 2: Frameworks for Digital Transformation**



**Source:** Intel corp., 2019

The first working framework can be labeled as adaptable, because it focuses on organizational culture and the challenges associated with it. The culture of an organization often has a greater impact on the success of a strategy than the strategy itself. If there is not an appropriate culture in the organization that supports the implementation of the strategy, it will not be successful. Today, in companies entering the process of digital transformation, the dominant culture is often focused on maintaining control in the era of digitalization. This often leads to excessive introduction of new surveillance and control measures, which causes new resistance reactions. Instead, management should embrace key strategies that will enable them to transform their business into an open platform that can be easily adapted and expanded. (Bowman et al., 2018).

The second framework focuses on understanding the essence of business, with the aim of enabling companies to transform in a way that will enable the evolution of their portfolio in line with new opportunities. Also, this framework implies the identification of change agents who will lead the digitization process and the provision of the necessary resources and authorities for successful implementation. The third framework deals with the role and selection of leaders in the digital transformation process, while the fourth framework emphasizes a holistic approach, using systems theory, with a particular focus on three key subsystems: customer satisfaction, employee satisfaction and supplier satisfaction.

Microsoft recommends that companies implement the digital transformation process through four key steps (Marković, 2019):

- Broad customer and/or user engagement
- Help employees acquire the necessary knowledge and skills for successful functioning in the digital economy
- Optimization of business processes, both basic and supporting
- Product modification – the product is adapted to new market requirements, including the implementation of new SMART functionalities and features.

Methodological tools and frameworks that are most often used to implement digital transformation projects and initiatives in Bosnia and Herzegovina and the Republic of Serbia include the following:

- TRIZ (methodology that is applied when an innovative approach is needed, and a new product or service should represent an innovation), which contributed to Samsung becoming the first company in the world to start digital transformation processes.
- PMI (methodology developed by the Project Management Institute), which is used for project management and process standardization.
- Agile methodologies (Scrum and Kanban), which today are dominant in the software industry, and are increasingly applied in public policies (Per Ander
- Double Diamond methodology, which is often considered the basic approach in digital

transformation and on which the company IDEO has built its reputation.

- Skunk Works, a specific way of managing projects under conditions of high uncertainty and risk, which is dominant in industries such as aeronautics, security and advanced autonomous systems.
- Wardley Mapping, a methodology that helps in deciding where to invest and what to develop in order to achieve maximum effect in the development of new products and services.
- Design Thinking, a methodology developed by the Stanford University School of Design, is used to conceptualize new products and services. Google uses it in two subtypes: convergent and divergent experimentation (Petković, 2021).
- Business Model Canvas, together with its variations, is used in projects of sustainable development, smart cities, as well as for checking the feasibility of business ideas in new business environments.

According to Krmpotić (Krmpotić, 2022), there are six key areas for improving business performance: Collecting and using real-time data about consumer experiences to improve the sales interaction between the organization and the customer.

Monitoring information about products, services and solutions in order to continuously improve the offer. More effective sharing of knowledge and information to enable better performance between different business functions and within organizational boundaries.

Application of deeper and focused analytics that supports better decision-making through more accurate insight into data.

Introducing more efficient and agile processes and systems that enable faster adaptation to changes in the business environment.

Adoption of innovative and more resilient business models that create space for the development of new innovations in the targeted environment.

### **3. CULTURE CHANGE AS A CONDITION FOR SUSTAINABLE DIGITAL TRANSFORMATION**

When the implementation of digital technologies involves the redesign of business processes, the transformation of the classic business model into a digital one and the redefinition of the business area, the process of digital transformation of the company does not end, but begins. In order for the new business model to be applied and sustainable in the long term, it is necessary to change the daily way of working and the behavior of employees and managers. A sustainable change in the daily

behavior and work of employees and managers can only come from changing their assumptions, values and attitudes, that is, from changing the organizational culture. Organizational culture represents a system of assumptions, values, norms and attitudes manifested through symbols that members of an organization have adopted and developed through common experience and that determine the way they understand the world around them and how to behave in it (Janićijević, 2013). The operation of each company is based on certain assumptions and ideas shared by the employees and managers of that company. Those assumptions and ideas are the basis of solving two basic problems that every company faces: external adaptation and internal integration (S Shallmo et al., 2017). Assumptions of external adaptation are assumptions about consumers, their needs as well as the way (technology) in which those needs are met. These assumptions determine the choice of business area, the choice of business model, as a way of delivering value to the consumer. Assumptions of internal integration are assumptions about people, their relationships and suitable ways of organizing. These assumptions condition the design of business processes, organizational structuring as well as the establishment of productive relationships within the collective. The assumptions of internal integration and external adaptation are deeply embedded in the company's mission, vision and culture. Digital technology has the potential to, when applied in an enterprise, change the assumptions of external adaptation and internal integration (Rauschenberger, 2017). It opens space and gives a chance to create completely new needs, to create new values, to design completely different processes and create a completely new structure. However, in order to take advantage of the opportunities for transformation provided by digital technology, it is necessary for employees and managers to change the assumptions from which they started their daily business until yesterday (Nayyar, 2022). Employees and managers need to align their behavior and way of working with their assumptions, attitudes and values. Simply, people have a need to be consistent and to work in a way that is consistent with the assumptions and values they hold. If some changes, such as those brought about by digitization and digital transformation, require employees to behave in the workplace in accordance with some new assumptions contrary to their previous assumptions, beliefs and values, they will reach a state of cognitive dissonance (Anthony et al., 2021). Cognitive dissonance is an unpleasant state from which people try to get out as soon as possible, and they can do it in two ways: by changing their behavior, so that they

return to their old behavior that is in accordance with their existing assumptions, or by changing those assumptions in order to legitimize them, rationalize them ("justified") the new behavior. In the first case, after a short period of changes, employees and managers will return to the old way of working and behaving, which is only legitimate for them because it is in accordance with existing assumptions and beliefs. The potential brought by digital technology will then not be utilized and the digital transformation will not be truly realized, the changes will be superficial and formal, not real. Then the organizational culture will block the changes that digital technology brings with it and it can easily happen to be the "silent killer" of the company that blocks the necessary changes.

In the second case, employees and managers will change their assumptions contained in their interpretative schemes and thus legitimize and rationalize new behavior and way of working that is compatible with the changes brought by digital technology. Digital transformation and a new way of doing business will then be realistic and sustainable because employees and managers internalize, i.e. they adopt the assumptions and beliefs on which it rests. The new way of working that realizes the potential of digital technology will be fully and long-term applied because it is in accordance with the assumptions contained in the interpretative schemes of employees and managers and the organizational culture. The conclusion is, therefore, that a successful digital transformation implies that employees and managers individually go through a difficult process of personal transition of their own consciousness (their assumptions and beliefs), and that the company itself goes through an uncertain process of changing the organizational culture. That is why changing the organizational culture is one of the key ingredients of the digital transformation of a company, without which it is not sustainable in the long term. Changing organizational culture is, on the other hand, a component of overall organizational changes. Management of organizational culture changes, as a condition for realizing digital transformation, is one of the phases or components of organizational change management as a whole.

#### **4. DISCUSSION**

Business decision-making is a key process in organizations, through which decisions are made that affect strategy, operations and all aspects of business. In modern organizations, the speed and precision of decision-making have become key factors for maintaining competitiveness and achieving business success. Traditionally, business decision-making was based on managerial experience, market analysis and intuition.

However, digital technologies allow decision makers to rely on data, automated systems and sophisticated analytical tools to improve the accuracy and speed of decision-making.

Digital technologies enable decision-making at all levels of the organization: from strategic decision-making, which refers to long-term goals and policies, to operational decision-making, which deals with daily business activities and reactions to market changes. Digital transformation begins at the moment when a certain organization begins to think about the application of digital technologies in business and lasts until its full implementation. It is extremely important to educate employees, because the application of digital transformation alone is not enough. Digital transformation fundamentally changes all pre-learned business habits. Companies today must be prepared for rapid technological changes caused by the emergence of numerous new technologies such as artificial intelligence, augmented reality, the Internet of Things, Big Data, robotization and others. The application of digital technologies in business affects the improvement of business processes and the entire business system. According to Burilović, "digital technology supports and simplifies the physical purchase of consumers, while it enables companies to collect additional and important information about consumers. By digitizing operations and processes, companies become more flexible and can much more easily adjust their marketing strategy to changes in the environment and consumer needs. Innovative and collaborative cooperation between companies and consumers is a challenge, but at the same time a great opportunity to solve issues related to the constant changes in consumer preferences (Krsmanović, 2013). The digital transformation of the company affects higher productivity, shorter duration of the cycle of production and delivery of goods, less physical work and higher total income. Digital business transformation is imperative for all entrepreneurs, from small businesses to large multinational organizations. Every organization is constantly developing and improving its business in order to remain competitive. As part of the development of the technological environment, organizations are developing in a digital business transformation in order to be more efficient, more profitable, and ultimately more competitive on the market. Digital transformation affects all parts of the organization. Instead, they provide further new opportunities for organizations to do better and expand.

Digital transformation is the process of implementing digital technologies in all aspects of an organization's operations, resulting in a change in business models, operational processes, organizational culture and strategy. Through



digitization, organizations can improve efficiency, reduce costs, create a better customer experience, and develop new products and services. However, digital transformation is not only the implementation of technology, but also a significant change in the way of thinking and doing business, which requires changes in the organization and culture.

Digital transformation is represented in several key areas: automation of business processes, Big data and analytics, cloud computing, artificial intelligence and machine learning.

Digital transformation in the company is oriented towards customer satisfaction, timely delivery, use of renewable energy sources, joint work of employees and machines, increase of employees' digital knowledge and skills. Digitization of business greatly facilitates the performance of daily work tasks. One unique or integrated system can replace numerous classic papers, Excel tables and various documents. This system would enable easier communication between departments, but also simpler communication with partners and clients. The digital transformation of business represents the transformation of business processes, company culture, experience and work methods of all employees with the help of technology. With the help of digital transformation, the company perceives new business approaches that lead to a competitive advantage. For the success of digital transformation in a company, an organizational culture that should enable the rapid sharing of all necessary information is extremely important. It should be mentioned that the application of digital

transformation brings with it certain risks and obstacles that the company should be prepared for. Sometimes employees are also an obstacle because they are not ready for changes and want to work the way they are used to. According to a survey, companies believe that digital transformation will have an impact on changing the business model and the entire industry in which they operate. Imamović (2020) states that some of the obstacles in the implementation of digital transformation in business can be financial reasons (the implementation of digital transformation requires a large amount of money and time, the costs of introducing new tools, education, etc. are also high), lack of time (the necessary redistribution of resources or employment of new experts), too much attention focused on existing business priorities (preoccupation with existing business leads to postponement of new strategic directions). Digital technologies allow managers and leaders of organizations to make informed decisions based on data, rather than relying on intuition or imprecise information. Big data analysis enables organizations to better understand market trends, consumer behavior and competition. For example, data analysis tools can make it possible to predict consumer trends, which helps develop new products or services that better meet customer needs. By using analytical tools such as predictive analytics and machine learning, organizations can accurately predict market changes and optimize their strategies. For example, in retail, data analysis of customer buying habits can help managers predict demand for specific products and optimize inventory.

Figure 3. Digital transformation in business



Source: Intel corp., 2019

Digital transformation brings numerous advantages to organizations, which can have a significant impact on their success and competitiveness. Below are some of the key benefits of digital transformation:

**Increased efficiency of business processes:** Digital technologies enable the automation of routine and repetitive business tasks, thereby reducing the human factor and increasing efficiency. Automation can improve the speed of execution of business processes, reduce response time and eliminate potential errors.

**Better decision-making thanks to better access to information:** Digital transformation enables organizations to collect, store and analyze large amounts of data. This data, when properly analyzed, can provide deeper insights into business performance and trends, enabling organizations to make informed decisions.

**Improved communication and collaboration with employees and users:** Digital technologies enable organizations to improve internal communication and collaboration between employees, regardless of their geographic location. Also, digital technologies enable organizations to improve communication and collaboration with their users, providing them with better services and support.

**Improving the quality of products and services:** Digital transformation enables organizations to improve the quality of their products and services. Through the implementation of digital.

Digital transformation is a key aspect of modern business and society, providing numerous advantages and opportunities. However, as organizations and societies increasingly turn to digitalization, certain shortcomings emerge that require attention and resolution. Through this work, some of the key shortcomings of digital transformation were investigated, as well as their causes and consequences were analyzed.

**Security challenges:**

**Cyber threats:** The increased connectivity of digital systems often leads to increased exposure to cyber threats.

**Data and privacy:** Collection and processing of large amounts of data opens up space for abuse and endangering user privacy.

**Technical defects:**

**System compatibility:** Older systems are often not compatible with new technologies, which can slow down or hinder the digital transformation process.

**Difficulties in implementation:** Implementation of new technologies may be met with employee resistance, technical difficulties or lack of proper training.

**Economic barriers:**

**High costs:** The initial costs of implementing digital systems and technologies can be high, especially for smaller organizations.

**Imbalance in access:** Some parts of society or industry may not have equal access to digital technologies, creating imbalances.

**Changes in the workforce:**

**Loss of jobs:** Automation and digitization of certain tasks can result in a reduction in the need for certain jobs.

**Need for new skills:** The workforce must quickly adapt their skills to digital demands, which can be challenging.

**Questionable viability:**

**Energy consumption:** Digital infrastructure can require significant amounts of energy, raising the question of sustainability in the context of environmental challenges.

The challenges of implementing digital transformation are many, but the most common ones encountered in companies are: resistance to change (employees can be resistant to new technologies, which requires careful change management and training), data security (with the increase in the volume of data and related systems, organizations must ensure adequate data protection and protection against cyber threats) and high implementation costs (implementation of new technologies can be expensive, especially for small and medium-sized organizations that do not have enough resources).

## CONCLUSION

Digital transformation is a key step for organizations that want to improve the business decision-making process and increase competitiveness. By integrating digital technologies into business, organizations are able to collect and analyze data faster and more efficiently, leading to better decision-making. Although there are challenges in the implementation of digital transformation, the advantages it brings in terms of better decision-making and adaptability of organizations to changes in the market environment make it necessary for survival and growth in modern business. Organizations that adopt digital transformation in time not only survive, but also become market leaders.

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