

Modern Business Models and Their Adaptation to Digital Transformation

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Abstract

Digital transformation has become a reality for businesses as technology advances and new approaches to transforming existing business models are being developed. Digital transformation covers the transformation of almost every aspect of a company's development: business processes, organisational structure, management model, and decision-making methods. Digital transformation includes the development of a digital strategy, the introduction of advanced technologies, effective data management, and the socialisation of change. As a result, the company's management transforms existing and creates new value propositions and business models. The purpose of the article is to identify the peculiarities of adapting modern business models to the processes of digital transformation in the modern world. While achieving this goal, the author has established that today in Ukraine much attention is paid to digitalisation processes, but they are mainly focused on the development of digital technologies in the public and social spheres, while business must implement information technologies and digital innovations on its own. The author analyses the experience of using digital technologies by the world's leading companies and determines how digital transformation is related to the formation and development of a company's strategy.

Keywords: Digital Transformation, Business Innovations, E-Commerce, Internet of Things (IoT), Artificial Intelligence, Adaptation to Changes, Digital Ecosystem.

Introduction

A company's business model is an analysis and schematic description of the interconnected business processes of a company. Every organisation should have such a model in its business plan if it wants to develop in the most financially beneficial way. The model demonstrates all cost and revenue items, showing what to sell, to whom, and how to sell it. It helps to identify the target audience, calculate the need for a particular product, understand the most successful method of selling goods, and much more.

Investors look at the specifics of business models when deciding whether to cooperate with a company. If sponsors see that the target

audience is active towards the product and that it is in demand, then these are good reasons to invest. Managers need a business model as a visual action plan. It immediately becomes clear what and how they will have to work with in order to achieve a steady increase in revenue.

The business model includes three interrelated elements. Each of them is based on a central core - the product - as the company receives funds to finance its current operations through turnover:

product creation - production of goods, development of their characteristics, design features, etc. (Aleksieienko et al., 2020; Emilova, 2022; Marshalok et al. 2021);

product promotion and sales - marketing processes, including product advertising, development of sales channels, etc. (Bie kowska & Tworek, 2022; Gunanto, 2023; Lobo va et al., 2022);

product monetisation - product price, payback, margin, etc. (Buriak & Petchenko, 2021; Khalina et al., 2019; Sylkin et al., 2019).

Creating a company's business model should be thoughtful and consider certain rules:

1. The development should be carried out only by management personnel, namely top managers of the organisation with extensive experience in this area.
2. All methods and models from professional fields and project management should be considered.
3. Each long-term perspective should be adapted to the individual characteristics of the company, ultimately representing its own development.
4. Before creating the model, you need to assess the degree of need for the tool and the desired model.

The company's production, sales, and other main business models that are currently in place should be analysed, put together in a single strategic scheme, calculating the degree of hierarchy and points of contact. Inefficient or duplicative modules should be removed, and necessary ones should be added.

An effective business model can be built on the principle of an "iterative cauldron" - parallel design. Performing work in parallel with continuous analysis of the results saves time

and therefore gives an advantage in development (Voskolupov et al., 2021; Zinisha et al., 2021).

The overall business model should be built based on the open systems method and the component method. This will help to avoid system conflicts. All parts of an effective business model should be combined to complement each other. Only then will it bring success to the company.

It is also important to realise that modern business models are becoming increasingly complex and sophisticated, and therefore, various digital technologies should be used to analyse and optimise them and ensure the effective implementation of digital solutions.

Overall, digital transformation is a key component of the overall business transformation strategy. It is not the only success factor, but it largely determines the outcome of any transformation project. The right technology, combined with employee competencies, processes, and operations, enables organisations to quickly adapt to challenging situations, seize promising opportunities, meet new and evolving customer needs, drive growth, and innovate - often in unexpected ways.

Digital transformation involves the integration of digital technologies and solutions into all areas of business (Akhmetshin et al., 2018; Feshina et al., 2019; Rakhimova, 2023). It is as much a cultural change as a technological change, requiring organisations to make fundamental changes to the way they work and the way they deliver customer experiences and benefits. Digital solutions also help to expand the workforce and can lead to the transformation of business processes and business models.

Therefore, digital transformation today represents an inevitable stage in the introduction of new digital technologies into business processes. It implies not only the use of innovations such as artificial intelligence, cloud solutions, and blockchain but also the transformation of all the company's products and the revision of the entire business development strategy.

The main challenge posed by global digitalisation is the difficulty of adaptation (Redko, et al. 2023; Suprunenko et al., 2023; Yessenbekova & Turezhanov, 2021).

When workflows are already established, the introduction

of new technologies can be challenging. To smoothly adjust to the adaptation of digital tools, it is necessary to prepare the ground and adapt the company to the new conditions of transformation.

Methodology

The study is aimed at analysing promising areas of adaptation of modern business models to innovative digital technologies and tools. The analysis of scientific literature is aimed at systematising approaches to identifying ways and opportunities to use the latest digital technologies to optimise business technologies and optimise the existing company management system.

The research was informed by the scientific works of leading domestic and foreign scholars, including an analysis of the literature of the last 5 years to provide an up-to-date view of the issues under development, as well as statistical materials and documents of the Ministry of Digital Transformation of Ukraine.

In the process of developing the topic, attention was paid to the adaptation of modern business models to the conditions of active implementation of digital technologies.

Results

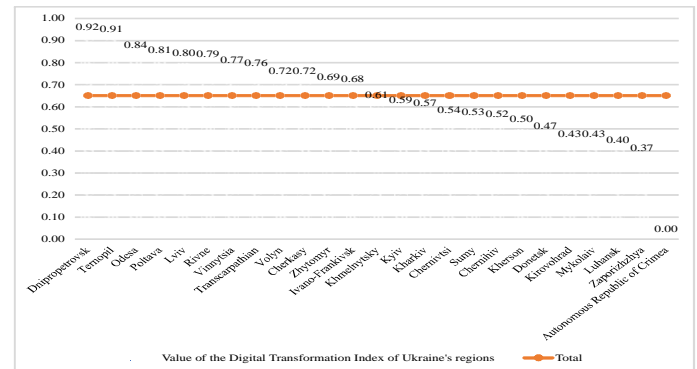
Digitalisation processes are a priority for the Ukrainian economy and have become especially important during the pandemic. Today, under martial law, the Ukrainian economy needs the latest tools to adapt its business to the unstable external environment and survive in the current situation.

Digital transformation is among the priorities of the Ukrainian government. The transfer of public services online and the digitalisation of processes are envisaged in the EU-Ukraine Association Agreement, the State Strategy for Regional Development, the Economic Strategy, and ministerial plans. All systemic efforts promise to significantly facilitate communication between citizens, the state, and business.

One of the key indicators for assessing the effectiveness of the digital transformation of the Ukrainian economy is the Digital Transformation Index of Ukraine's regions (Fig. 1).

Author's development based on Polissya Foundation for International and Regional Studies (2022)

Figure 1. Digital Transformation Index of Ukraine's regions

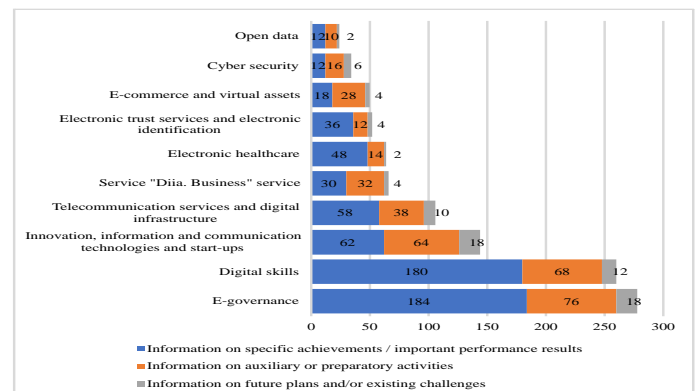


The data in Fig. 1 indicate that the effectiveness of digital transformation in Ukraine is not uniform across the regions, and therefore there are areas that require significant attention to improve the efficiency of digital tools implementation.

For Ukraine, the introduction of the electronic service Diia, which was overseen by the Ministry of Digital Transformation of Ukraine, was revolutionary in the context of digital technologies. For example, Fig. 2 shows the distribution of publications on the official website of the Ministry of Digital Transformation of Ukraine by the nature of information in the context of the ministry's performance (quantitative data).

Author's development based on Polissya Foundation for International and Regional Studies (2022)

Figure 2. Distribution of publications on the official website of the Ministry of Digital Transformation of Ukraine by the nature of information in the context of the Ministry's performance (quantitative data)

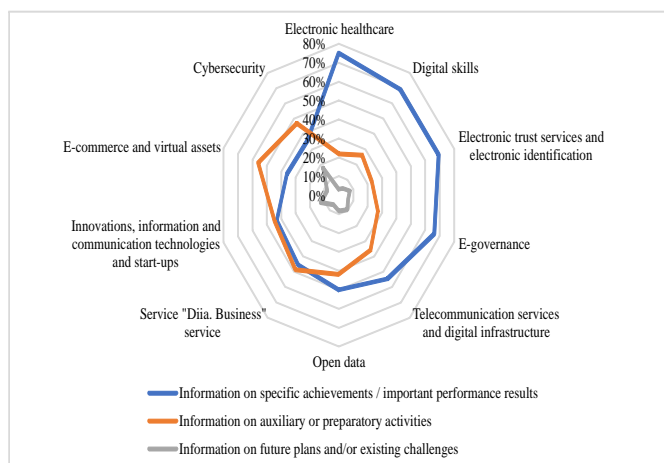


According to Fig. 2, it can be argued that the Ministry of Digital Transformation of Ukraine pays the most attention to digital skills in various areas of economic life and e-government, which emphasises that the state mostly considers macroeconomic and infrastructure projects in the context of digitalisation.

In Fig. 3 shows for comparison the structure of publications on the official website of the Ministry of Digital Transformation of Ukraine by the nature of information in the context of the ministry's performance.

Author's development based on Polissya Foundation for International and Regional Studies (2022)

Figure 3. Breakdown of publications on the official website of the Ministry of Digital Transformation of Ukraine by the type of information in the context of the Ministry's performance.



According to Fig. 3, it can be argued that the same attention is paid to those processes that are focused on the macroeconomic and social spheres, while business digitalisation is stimulated by the state, but the state is not directly involved in it. In addition, the Ministry of Digital Transformation of Ukraine has identified the main areas of innovation in the field of digital development in the context of European integration:

1. Sustainable development of public e-services and the ecosystem for their provision (Baraja&Chaniago, 2023; Katamadze, 2022; Melnyk et al., 2020).
2. Improving data exchange between registries and government agencies.
3. Approximation of Ukrainian electronic identification infrastructure to EU standards (Popova, 2020; Tsekhmister et al., 2021a; Yankovskaya et al., 2022).
4. Expanding the capacity to process criminal cases through the electronic case management system (Ayu Nani et al., 2021; Ayu Nani & Dina Safitri, 2021; Christa & Kristinae, 2021; Tsekhmister et al., 2021b).

Thus, we can see that business is only indirectly involved in stimulating digital transformation processes. In view of this, it is worth considering how businesses can independently stimulate and develop digital transformation processes to build and develop existing business models more effectively.

Modern Western companies have already shown examples of how digital tools can become the key to success and effective development; the most successful companies that are developing through the introduction of innovative digital technologies are shown in Table 1.

Table 1- Examples of successful companies that have successfully implemented approaches to digital transformation of their business models

Company	Experience in digital business model transformation
Amazon	A digital marketplace that does not have physical stores but has built a logistics system and uses its own warehouses. It is a vivid example of the use of e-commerce and the development of a company entirely via the Internet
Apple	In addition to technology, it is the largest retailer of music, although it does not sell CDs, it sells the right to listen to it
Pixar	As of 2022, it has won 11 Academy Awards, although no live actors have appeared in any of its films, and the content is created exclusively through the use of digital technologies

Company	Experience in digital business model transformation
Netflix	The company was able to create a new concept. Video distribution, while not owning cinemas, all films and TV series are distributed exclusively via the Internet
ZOOM	It has achieved the greatest success during the pandemic and has the prerequisites to become one of the most widely used online meeting platforms in the world
Google	The company is built on the use of digital technologies and provides services to other companies to promote their products and services through its search engine
Airbnb	The company is one of the largest residential rental services, but does not own any hotels or apartments, but only provides an intermediary service and protects the interests of both parties (landlords and tenants)

Author's development based on (Ihnatenko, 2022; Metelenko, 2018; Mocanu, 2018; Otonneet al., 2023).

These examples show that modern digital methods and the active use of digital transformation tools can significantly improve the efficiency of a company in almost any area.

Having studied the experience of the world's leading companies in implementing digital technologies, it is logical to identify the main features of business models that can be transformed by digital technologies and innovations.

1. Personalisation of goods and services. New business models adapt products or services to individual and specific customer requirements better than the dominant ones. And companies can respond to these requests at a favourable price by using big data analytics and artificial intelligence to process the requests of the target audience.
2. Closed loop. In many business process models, the linear process (production, consumption, and disposal of products) is replaced by a closed cycle that involves the recycling of used products. This reduces overall resource costs. This requires the introduction of innovative tools for energy conservation and lean manufacturing.

3. Sharing assets. Some innovations capitalise on the fact that they help to share assets: for example, Airbnb allows homeowners to rent out their homes to tourists, and Uber allows motorists to earn money with their own cars. This happens with the support of a bilateral online platform: the homeowner receives money for the room, and the tourist saves on accommodation. The barriers to entry are lower than in the traditional market, as previously you had to own assets, but now it is enough to become an intermediary between their owners.
4. Payment upon receipt of the result. A number of business models assume that the customer pays only for the products or services actually used. This benefits both the consumer, as they pay only for the value they receive, and the company, as it attracts new customers. This can be applied to services provided over the Internet or in the field of e-commerce.
5. Collaboration ecosystem. Many innovations succeed because new technologies make it easier to collaborate with supply chain partners, allowing for more accurate risk management and cost reduction.
6. Flexible and adaptive organisation. In some cases, technology makes it possible to move from traditional hierarchical decision-making models to new ones that better take into account market specifics and easily adapt to changes. In this case, the company saves money, and the client receives more favourable offers.

It is also worth emphasising that the business model and the specifics of its implementation have a significant impact on the process of formulating and implementing the company's strategy. The business model clearly demonstrates how the company generates revenue from its operations and is therefore linked to the economic component of the strategy, the revenue-cost-profit ratio, cost structure, revenue level, profit streams, and return on investment.

The business model will show that the chosen strategy is correct and guarantees cash flow. If we look at these concepts in more detail, we will see that the strategy reveals the methods of competition for profit and leadership of the

company in general, and the business model records data on revenues and expenses during the period of implementation of the chosen strategy and ensures the company's viability.

If a company has been competitive and profitable for a long time, it has an effective business model that confirms the profitability of its strategy. If the company has just made a

name for itself or has not been able to achieve a stable high income for a long time, then these concepts should be carefully analysed to identify shortcomings.

Table 2 shows the areas of comparison between business models, company development strategies, and digital tools that can be used.

Table 2 -Comparison of business models, company development strategy, and digital tools that can be used

Parameters	Sectoral business system	Business model	Company strategy	Digital tools
Essence	Chain of activities in the industry	The way business is organised in the industry	The direction of the company's development	Any set of digital tools that can produce results
Orientation	Understand the process of cost and value creation	Creating value for customers, which will generate revenue	Creating advantages over competitors	Using digital tools to build a positive image and promote products
Focus of the analysis	Analysing the stages of product development and delivery to the target audience	Analysis of the industry and industry business system, trends, and scenarios of their development	Analysis of the company's external and internal environment, competitive analysis	Using digital tools to adapt your product to market needs
Degree of uniqueness	Typical for the industry	Can be both typical for the industry and innovative	Unique to the company	Formation of a unique set of digital tools to ensure optimal use of all types of resources in the company

Author's development

Therefore, it can be argued that for any business model and strategy, a company today can choose a set of digital tools that will improve the individual orientation of the company's product and shape the benefits of doing business using this approach and business model.

Conclusion

The concept of digital transformation of the business model is inextricably linked to modern concepts of strategic management, as it involves the introduction of rather serious changes not only in the management system but also in the production process or product promotion.

An analysis of the directions and approaches to digital

transformation in Ukraine has shown that today the state is focused on the digitalisation of the public sector and the social sphere. At the same time, business digitalisation remains within the interests and initiatives of business owners.

The analysis carried out in this paper has shown that the long-term business success of many successful companies is due to their desire to use unique resources, including information resources, to develop the organisational capabilities of the company, which allows them to quickly adapt to the conditions of digital transformation. In addition, the modern concept of business modelling should

also include the development of a competitive strategy, as competitive advantage is achieved not only through the efficient execution of operations within the value chain but also by establishing unique connections and relationships with partners in the value chain using the latest digital technologies.

The digital transformation has contributed to the transformation of the business model itself into a unit of analysis, which raises the issue of developing a business modelling strategy that requires greater detail and elaboration of all business processes using digital tools. At the same time, a digital business model cannot be effectively implemented without comprehensive digitalisation of these business processes and the introduction of innovations in the business modelling process.

Highlighting areas for further research, it should be noted that one of the areas of scientific analysis should be the development of organisational forms of business models in the context of the digitalisation of the economy with a focus on the protection of consumers' personal data.

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