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BUSINESS MODELS OF ENTERPRISES IN THE CONDITIONS OF DIGITAL TRANSFORMATION: GLOBAL AND DOMESTIC EXPERIENCE

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ABSTRACT

The article aims to provide a comprehensive overview of both theoretical concepts and practical applications regarding the transformation of business models in the context of digitalizing the economy. In the current digital landscape, traditional business models may no longer suffice to sustain growth and competitiveness. Therefore, there is a pressing need to identify and adopt novel approaches that leverage digital technologies to their fullest potential. By examining the latest trends and emerging paradigms in economy's, the article aims to rethink their strategies and embrace digital transformation proactively. This involves not only incorporating technology into existing operations but also reimagining the entire business model to capitalize on new opportunities and address evolving consumer behaviors. Furthermore, the article aims to provide practical insights and actionable recommendations for businesses looking to embark on their digital transformation journey.

Keywords: *model, business model, digitalization, digital transformation, digitalization, digital era, digital technologies*

1. INTRODUCTION

In the information society, economic activity revolves around the acquisition, processing, and utilization of information and knowledge. This shift fundamentally alters the nature of economic activities and drives the formation of a new type of economy.

The importance of this topic is justified by the profound changes it brings to the economic landscape, as businesses increasingly rely on information and communication technologies to innovate and gain competitive advantages. The process of digital business transformation entails moving away from traditional management systems towards innovative approaches that leverage digital technologies. The ultimate goal is to transform businesses into digital forms that can effectively compete and thrive in the modern society.

This topic is indeed pertinent and relevant in today's context as organizations across various sectors are actively engaged in digital transformation initiatives to stay competitive, improve efficiency, and meet evolving consumer demands. Understanding the dynamics and implications of digital business transformation is crucial for businesses, policymakers, and researchers alike in navigating the complexities of the contemporary economy.

The new digital environment requires companies to use digital technologies and platforms to collect, integrate and use data, adapt to the platform economy (Petrakaki, D., Hilberg, E., & Waring, J. (2018b) and form and use new strategic methods of doing business in order to increase their own competitiveness.

The formation of business models in the conditions of digital transformation generally concerns the most important areas of business operation. and in our opinion, the following aspects should be highlighted:

1. Fundamental Alteration: Business model transformation involves a significant change in the foundational aspects of how a company operates and delivers value. This can encompass various elements such as products/services offered, target markets, distribution channels, revenue streams, and more.
2. Purpose: The primary objectives of business model transformation are to enhance the company's performance, competitiveness, and adaptability to dynamic market conditions. This means that the transformation aims to make the company more agile, resilient, and responsive to changes in its environment.
3. Rethinking Strategy: Central to business model transformation is the reevaluation of the company's strategy. This involves critically assessing its current positioning in the market, identifying areas for improvement or innovation, and devising new approaches to achieve its objectives.
4. Operational Changes: Business model transformation often necessitates changes in the company's operational processes and practices. This could involve streamlining workflows, adopting new technologies, optimizing resource allocation, and enhancing efficiency across various functions.
5. Financial Considerations: Financial restructuring may be a crucial component of business model transformation. This could involve reallocating investments, reducing costs, seeking new sources of funding, or restructuring debt to support the implementation of the new business model.
6. Organizational Restructuring: Business model transformation may also entail reorganizing the company's structure and capabilities. This could involve changes in roles and responsibilities, talent acquisition or development, and fostering a culture that encourages innovation and adaptability.
7. Value Creation: Ultimately, the goal of business model transformation is to create greater value for all stakeholders, including customers, employees, investors, and partners. This could involve delivering enhanced products/services, improving customer experiences, generating new revenue streams, and increasing overall profitability.

However, unfortunately, quite a lot of domestic companies simply slow down the processes of digital transformation of domestic business and the development of creative entrepreneurial business ideas. Therefore, digitalization is when companies striving for digital transformation transform previously successful business models into obsolete ones (Tongur and Engwall, 2014; Kiel et al., 2017) by digitizing all possible business processes.

Business model transformation is a strategic endeavor that requires a comprehensive overhaul of the company's approach to value creation and delivery. It involves a holistic reassessment of strategy, operations, finances, and organizational structure to drive sustainable growth and success in an ever-changing business landscape.

2. LITERATURE REVIEW

The exploitation of digital technologies offers opportunities to integrate products and services across functional, organizational, and geographic boundaries (Sebastian et al., 2017).

Digital transformation (Andriyiv, N., 2022) does not consist of one-time changes, but requires a strategic plan for consistent and systematic monitoring of trends in technological progress.

Digital transformation, which involves the transition to the business model of an enterprise in the conditions of digital transformation, really has its own characteristics, which are determined by financial and economic activity. The option that will be optimal for a specific type of enterprise depends on its specifics and features.

The basis of the formation of the business model of the enterprise are the following features:

- in the case of trade, where the main activity is related to the exchange of goods and services,a virtual enterprise may be a justified option. Such businesses can operate effectively in an online environment, using electronic platforms for ordering, paying and delivering goods;
- in the production area, where industrial products are produced, a partially virtual enterprise may be a more appropriate option. This means that a business can use digital technologies to automate and optimize production processes, but still have a physical component, such as a factory or production premises;

In any case, digital transformation opens up new opportunities for enterprises to improve efficiency, reduce costs and improve competitiveness. The key is adapting the business model to specific market requirements and conditions, as well as using digital tools to achieve the set goals.

In the digital age, business conditions are constantly changing, requiring companies to adapt to new technologies and models management. Studies of various business models, which are successfully used both abroad and in Ukraine, show the importance flexibility and readiness for innovation (Shostak, L., Bilyo, I., & Ulyanitskyi, A., 2024). The use of digital technologies affects system changes, structures, activities and processes. firms, which introduce new digital supply channels, change their way to the market, which then affects the creating value for its customers.

3. AIM OF THE RESEARCH

The purpose of this research is the analysis of the world's leading experience in the formation of business models for the development of enterprises and the determination of the probability of their adaptation to modern business conditions in the conditions of military operations and accelerated processes of digitalization of the economy. The authors set the goal of developing the recommended aspects of taking into account changes in society and global trends for the formation and implementation of modern and adaptive models of domestic successful business.

4. METHODS

Studies have shown that a standard set of indicators is used when forming a business model of an enterprise, and quite often it is equated with strategy. However, modern conditions confirm the hypothesis about the impossibility of effective business functioning without the use of digital technologies. Therefore, in our opinion, the standard relationship between the business model and strategy proposed by M. Levy with the help of the «equation of value» should be brought to a "modern" look. In its classic form, this model has the following form and is unified for all areas of business:

$$V = M \times S, \quad (1)$$

where

V is Value (Value),

M – Model (Business model)

S – Strategy (Strategy).

This equation assumes that the enterprise should determine the best business models to implement its strategy.

The formation of the enterprise's business models does not take into account the potential advantages of the digital transformation of the economy, such as:

1. increasing the efficiency of operations - the use of digital technologies allows automating many operations and processes, which leads to a reduction in labor costs, time and resources;
2. improving the quality of products and services - with the help of data analysis and collecting feedback in real time, companies can quickly respond to the needs and requirements of their customers, which allows improving the quality of products and services;
3. increasing competitiveness - enterprises that actively implement digital technologies can respond more quickly to changes in the market, implement new opportunities and stay ahead of competitors.
4. improving interaction with customers - the use of digital communication channels allows enterprises to improve the ways of interaction with their customers, provide personalized services and create deeper connections;
5. expanding markets and increasing access to customers - digital technologies allow enterprises to attract new customers through online sales channels and advertising, as well as to expand into new markets without significant investments;
6. increasing innovativeness - digital technologies stimulate innovation and creativity in the organization, creating new opportunities for the development of products, services and business models;
7. acceleration of flexibility and adaptability - digital transformation allows enterprises to quickly respond to changes in the external environment, review and adapt their strategies and processes in real time. Model Components:

While digital transformation can bring numerous benefits, it also comes with business risks. Some of the most common digital transformation risks include:

1. Cyber security. The increased use of digital technology also increases cyber security threats. Businesses can become victims of cyber-attacks, lose confidential customer data, or be subject to ransom demands if data is decrypted.
2. Insufficient internal culture. Lack of support for a culture of change among employees can be an obstacle to successful digital transformation. If employees are not ready or willing to adopt new technologies and processes, this can lead to project failure.
3. Underestimation of resources. Deepening the implementation of digital technologies can require significant financial, time and human resources. Underestimating these resources can lead to budget overruns, performance delays, and implementation deficiencies.
4. Insufficient data security. Increasing the volume of collection, processing and storage of digital data may lead to the risk of privacy violations and leakage of confidential information. Insufficient data security can affect customer trust and cause major losses.
5. Failure to implement new technologies. Insufficient preparation and failures in the implementation of new digital technologies can lead to the fact that the enterprise will not be able to use them to their full potential, will not receive the expected benefits, or will

lose a competitive advantage altogether.

6. Loss of human resources. The introduction of automation and other digital technologies can lead to a reduction in the need for human resources and even mass layoffs.
7. Underestimation of competitors. Underestimating or not paying enough attention to the activities of competitors in the digital space can lead to a loss of market position and loss of competitiveness.

Given these risks, businesses must monitor them and take appropriate measures to reduce or avoid them.

However, in our opinion, this formula (1) must be transformed to meet the requirements and conditions of the transformational digital economy.

The general appearance of the enterprise's business model can probably have the following form:

$$V = M \times C, \quad (2)$$

where

V is Value (Value),

M – Model (Business model)

C – Level of digitization (Digitization).

In our opinion, the level of digitalization when forming the business model of an enterprise should be evaluated as follows:

$$Z = (a \pm c) * I1 + (a \pm c) * I2 * (a \pm c) * I3 + \ldots + (a \pm c) * Ip, \quad (3)$$

where

a – rating influence of factors of the external environment;

c – rating influence of internal and external digital environment factors;

x is an integral indicator of the n...component of the digitalization level;

n is the number of components.

We will present our proposed composition of elements of the digitalization level for use in this model:

I1 – level of Internet infrastructure development (RRII);

I2 - the share of the population that has the skills necessary to use the services provided by the Internet (IN);

I3 – degree of use of the Internet by the population or business (HE);

I4 – the level of digitalization of business, including the use of e-commerce (RCB);

I5 – volume of public services provided in electronic form (OPEF).

4. 1. RESULTS OF THE IMPACT OF DIGITAL TRANSFORMATION ON THE GLOBAL AND UKRAINIAN ECONOMY

Modern approaches to development and production allow companies to significantly reduce the time it takes to bring new products to market. This allows businesses to enter the market faster, respond to changes in demand and the competitive situation, and quickly adapt to customer requirements.

Unfortunately, based on the situation that has developed in Ukraine, a significant amount of necessary information for calculating the level of digitization when forming a business model of a specific enterprise is missing due to the occupation of part of the territories, destruction of infrastructure, etc.

Based on the fact that it was the military eyelash that became one of the factors of acceleration of digitalization, in our opinion it is worth considering the constituent elements of digitalization for use in the model.

I1 – level of Internet infrastructure development (RRII). Over the period from 2012 to 2023, Ukraine has maintained a consistently above-average level of Internet access. This has been facilitated by a range of factors, including developed infrastructure and competitive pricing, despite significant challenges posed by economic difficulties and geopolitical conflicts.

The main trends in the development of access are as follows:

1. **Consistent Growth in Internet Penetration:** In 2012, the level of Internet penetration in Ukraine was 33.7%. By 2023, this figure had increased dramatically to 80%. This substantial growth reflects a significant increase in the number of Ukrainians regularly using the Internet, highlighting the expanding digital inclusion in the country.
2. **Infrastructure Development:** Ukraine has benefited from a well-developed Internet infrastructure. The widespread availability of 4G networks has contributed significantly to the accessibility of the Internet across urban and rural areas.
3. **Economic Factors:** Relatively low prices for Internet services have made it affordable for a broad segment of the population. Economic difficulties, however, pose ongoing challenges, particularly in economically disadvantaged regions.
4. **Geopolitical Challenges:** Temporary Russian-occupied eastern regions of Ukraine and the annexed Crimea have faced disruptions in Internet services. The full-scale Russian invasion and subsequent massive airstrikes have further exacerbated difficulties in accessing the Internet in affected areas.
5. **Absence of Strict State Control:** The absence of strict governmental control over the Internet has allowed for greater freedom and accessibility, contributing to the rapid growth in Internet usage.

Summary of Internet Accessibility (2012-2023):

- **Average Indicator:** The average indicator of Internet access in Ukraine during this period stands at 18 out of 25 points, indicating a high level of accessibility with slight fluctuations.
- **Digital Inclusion:** The significant rise from 33.7% penetration in 2012 to 80% in 2023 underscores a major improvement in digital inclusion.
- **Economic and Geopolitical Factors:** Despite economic hardships and geopolitical strife, particularly in regions affected by conflict, Ukraine has managed to sustain and grow its Internet accessibility.

Ukraine's Internet access landscape from 2012 to 2023 shows a remarkable increase in penetration rates, thanks to robust infrastructure, affordable pricing, and minimal state intervention. However, ongoing challenges due to economic instability and geopolitical conflicts underscore the need for continued investment and support to ensure stable and widespread Internet access across the entire country.

I2 - the share of the population that has the skills necessary to use the services provided by the Internet (IN). According to the results of an all-Ukrainian survey conducted by the Kyiv International Institute of Sociology in collaboration with the UN Development Program in 2023, Internet usage patterns among Ukrainian citizens exhibit significant trends:

1. **Daily Internet Usage:** In 2023, 80% of Ukrainians reported using the Internet every day. This represents an 8% increase compared to the previous year, highlighting a rapid growth in daily Internet engagement.

2. **Irregular Internet Usage:** 11% of Ukrainians used the Internet irregularly, which is defined as using it for 2-3 hours a week or less. This indicates that while a majority engage with the Internet daily, a notable minority still have limited and sporadic Internet usage.
3. **Non-Users:** 9% of respondents indicated that they did not use the Internet at all. This segment represents a small but significant portion of the population that remains disconnected from digital resources.

The data from the 2023 survey underscores the significant penetration and importance of the Internet in the daily lives of Ukrainians. With 80% of the population using the Internet every day, there is a clear trend towards widespread digital engagement. However, the presence of irregular users and non-users points to the need for ongoing efforts to ensure comprehensive digital inclusion. Addressing the barriers faced by these groups, especially in the context of economic and geopolitical challenges, will be crucial for further development of Ukraine's digital landscape.

I3 – degree of use of the Internet by the population or business (HE). Many Ukrainian enterprises are actively developing their online channels, including online stores, websites and presence in social networks. This is especially important in the conditions of quarantine restrictions and changes in consumer behavior.

The transition to online trading allows businesses not only to survive, but also to expand their customer base, both in the domestic market and beyond.

More and more enterprises are implementing digital tools to optimize their business processes. This includes the use of cloud services, CRM systems, marketing automation and customer relationship management.

Investing in digital technology enables businesses to increase efficiency, reduce costs and improve customer service.

One of the main challenges for business is the need to adapt to rapid changes in the market and the introduction of new technologies. This includes training staff, ensuring cyber security and finding new suppliers of raw materials.

At the same time, the development of the digital economy opens up new opportunities for enterprises, such as entering international markets, introducing innovative products and services.

I4 – the level of digitalization of business, including the use of e-commerce (RCB). The development of e-commerce of industrial enterprises of Ukraine shows both positive and negative trends. Despite significant difficulties due to a broken infrastructure, there is an increase in the volume of products sold via the Internet, a decrease in the share of e-commerce in the total volume of trade of industrial enterprises, as well as factors that inhibit this development.

The increase in the volume of products sold via the Internet is due to the fact that with the help of information and communication technologies, the volumes of products sold by industrial enterprises of Ukraine are increasing remotely. However, the total share of e-commerce by industrial enterprises is decreasing in its total volume.

There is an increase in the number of enterprises that actively use the Internet for trade and electronic payments.

In the structure of the industrial sector, industrial products sold remotely have the following form: food products, beverages and tobacco products - 62.5%; metallurgy products - 7.5%; rubber and plastic products - 6.6%; motor vehicles - 6.5%; wood products and printing - 5.2%; chemical products - 2.8%; textile products, clothing, leather and leather products - 1.7%.

Of course, digitalization of the economy requires the rapid development of e-commerce, but unfortunately, there are a number of factors that have an inhibitory nature: damaged logistics

infrastructure, destroyed enterprises (damaged production facilities in the south and east of the country), migration of workers.

Instead of the traditional cycle of product development and release, enterprises are increasingly using an iterative approach, which allows them to quickly release new versions of products and respond to changes in real time.

Businesses actively test new concepts and products to ensure they meet customer needs and requirements. This allows them to quickly adapt to changes in market conditions and ensure high quality products.

In general, the speed of entry of new products to the market and the speed of reaction to changes in customer requirements are becoming key success factors for modern business models, especially in the conditions of a rapidly changing digital environment.

Table 1 shows the conceptual difference between classic and digital business models.

Table 1. Comparison of classic and digital business models

	Indicators	Classic business model	Digital business model
1	Strategic planning and analysis data	Finding and analyzing trends	Identifying trends based on Big Data and machine learning
2	Production	Production of products	Optimization of production in accordance with by demand
3	Storage	Storage of finished products	Optimizing balances in real time time
4	Transport and logistics	Planning, delivery and control for effective logistics	Real-time delivery control and process forecasting
5	Selling	Distribution of products through points sales	Direct sales to consumers

Source: Ivanchenko N., Kudrytska Z., Rekachynska K. 2020

The differences between the traditional business model and the digital platform considered by the authors reflect the significant influence of digital technologies on the transformation of the main elements of the business model of enterprises. Let's take a closer look at this:

The differences between a traditional business model and a digital platform are based on the following criteria:

Organization of interaction - digital platforms are aimed at organizing interaction between sellers and buyers, while traditional business models focus on the production and sale of goods or services;

Value - in digital platforms, the value depends on the number of participants, while in traditional business models, the value is in the goods or services themselves;

Participant Roles - In traditional business models, the roles of "producer" and "consumer" are defined, while in digital platforms they can change.

Support and promotion - digital platforms actively support their work and promote themselves to ensure that new participants are attracted.

It is worth highlighting the main consequences of the influence of digital technologies on the transformation of the business model:

- a value proposition, i.e. the use of digital technologies allows creating new values and transforming analog products into digital ones;

- consumer segments - digital technologies change purchasing patterns and allow better understanding of consumers;
- mutual relations with the client support interaction with clients;
- sales channels - creation of new sales channels and opportunities for customer service;
- sources of income - new methods of monetization are introduced with the help of digital technologies;
- key resources - transformation of key resources, such as employees and information technologies;
- key partners - digital technologies change approaches to cooperation with key partners and promote collaboration.
- cost structure - digital technologies increase efficiency and reduce costs.

These differences and the impact of digital technologies show how today's business models are being transformed by the digital revolution.

Undoubtedly, the level of digital transformation of the enterprise's business models directly depends on the state and trends of digitization of the economy and society as a whole.The digital economy fosters a close relationship between humans and technology, where machines, powered by artificial intelligence and robotics, handle many formal tasks. This symbiosis enables efficiency and productivity gains, transforming how work is done across various industries.

Countries at the forefront of artificial intelligence utilization stand to gain significant economic benefits, potentially increasing their GDP by 20-25% compared to the current situation. This underscores the importance of investing in AI technologies to drive economic growth and competitiveness.

The digital economy brings both opportunities and challenges for individual employees. Specialists with digital and cognitive skills may see an increase in pay, while those engaged in repetitive tasks may experience a reduction in wages. However, the digital economy also frees people from routine work, granting access to electronic information and providing flexibility in labor organization.

The world (Sheiko Iryna, Storozhenko Oleksandra, 2019) has entered a new era in which the impact of digital technology is increasingly felt in all sectors of the economy. Digitalization is dramatically changing traditional industries and sectors. There is a change in classic business models, analog processes and operations flow to the Internet, there is an opportunity to formulate personal offers for each individual client. Automation and robotization minimize the need for human resources, and rapidly increase efficiency and productivity. Cardinal changes are also taking place in those sectors that are considered basic for the Ukrainian industry - metallurgy, oil and gas, energy, agroindustrial complex, etc.

With the rise of the digital economy, there's a shift towards greater emphasis on internal motivation, self-control, and personal responsibility in the workforce. Additionally, teamwork can now be managed remotely, leading to greater individualization of labor and changes in how teams collaborate.

The digital economy operates in an environment of abundant information resources, where each market player has access to information. This abundance introduces new challenges such as information security risks and the need to verify the reliability of information. Effective interaction between the state, corporations, and civil society becomes crucial for navigating these challenges and ensuring the smooth functioning of the digital economy.

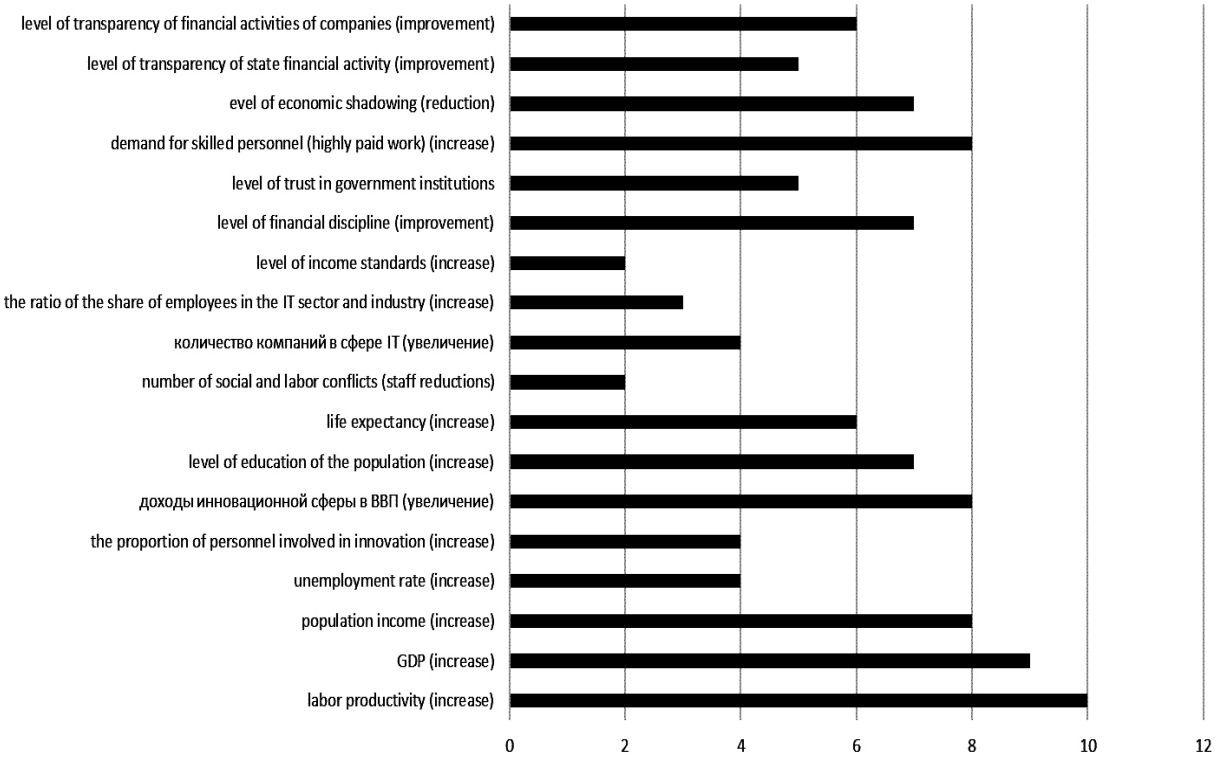
In summary, the digital economy represents a transformative shift in how work is done, leveraging technology to drive productivity, economic growth, and individual empowerment. However, it also brings about challenges that require collaboration and coordination among various stakeholders to address effectively.

According to the opinion of the Digital Agenda of Ukraine initiative experts [HITECH Office, 2016], in order to reach $ 1 trillion in GDP in 2030E, it will take the next 3-4 years to actively stimulate the penetration of technologies and innovations in the economy that could potentially show significant growth, namely: mechanical engineering; military-industrial complex; transport and logistics; agricultural sector; food and processing industry; woodworking; metallurgy.

In Ukraine, digital transformation is accompanied by quite a lot of difficulties, both economic and social in nature. Many enterprises, managers and employees are simply not morally ready for digitalization of business processes and try to work with old methods.

The strength of the influence of digitalization on the socio-economic situation in Ukraine is shown in Figure 1 (Chala N., Poplavska O., 2020), which shows how the domestic economy perceives transformational processes.

Figure 1. The ranking indicators of the impact of digitalization on the socio-economic state of Ukraine (Chala N., Poplavska O., 2020)



We will analyze the main indicators of digitalization of the domestic economy, which are proposed for use in forming the business model of the enterprise.

Figure 2. Comparison of countries by place in the Network Readiness Index 2020

Comparison of countries by place in the Network Readiness Index 2020

1	8	9	17	23	28	48	55	56	64	65	66	71
Sweden	USA	Germany	France	Estonia	Czech Republic		Armenia	Kazakh-stan	Ukraine		Azerbai-jan	Moldova

Source: Network Readiness Index (2020)

Position of Ukraine 2020 64th place out of 134

The network readiness index reflects the innovative and technological potential of the countries of the world, as well as their development opportunities in the field of high technologies and the digital economy.

1. Access to technology and Internet infrastructure. This level is responsible for the availability of digital infrastructures, their quality and focus on new technologies (Internet of Things, Artificial Intelligence, etc.).
2. Use of technologies by citizens, businesses and the state. The next step is the use of digital technologies by citizens to increase productivity, achieve certain social and commercial goals.
3. Regulation and management of the field of technologies. The level is responsible for assessing state capacity in legal regulation and increasing trust in digital technologies.
4. Impact of technologies on economy and quality of life. This level determines the extent to which available digital technologies affect the everyday life of citizens, their quality of life, and business conduct.

Regarding the Digital Infrastructure Penetration Index, we have the following indicators (Eurostat, Global Cybersecurity Index, Global Connectivity Index, Global ICT Development Index):

1. Access to the Internet. Due to the late introduction of 3-4G technology, Ukraine has one of the lowest levels of high-speed mobile Internet coverage - only 66% against the EU average of 84%.
2. Computerization. The relatively high computerization of urban households is worsened by the weak provision of social and public infrastructure facilities.
3. Interoperability of state registers. The high cost of maintaining state registers, their technical and semantic disparity, duplication and fragmentation of data in the registers slow down the development of digital public services.
4. Cloud services. The lack of an effective regulatory system reduces Ukraine's potential in one of the most dynamic digital markets.
5. Cyber security. According to the Global Cyber Security Index
6. Ukraine ranks 54th out of 175 countries.
7. Digital identification. The infrastructure of identification and trust is used by approximately only 3–5 million Ukrainians.
8. Open data. The field of open data is in its infancy.

The next indicator taken into account by the model is the speed of mobile and fixed Internet. According to the Center for Economic Recovery, CIA World Factbook, Opensignal report, Cable.co.uk, NKRZI, Ministry of Digital Transformation of Ukraine, low speed and level of coverage inhibit the full development of the digital economy. Due to the late launch of 4G technology, Ukraine still remains among the countries with the least high-speed mobile Internet coverage in the region. 4G coverage is 83%, less compared to the EU (96%). According to the GFk, the penetration of fixed SHSD in Ukraine is 56.5% of households, which is significantly lower than the average level in the EU (78% according to DESI 2020).

Availability and quality:

1. Ukraine has one of the most accessible mobile and fixed Internet in the world, which creates favorable conditions for the development of e-commerce and the availability of public online services.
2. However, Ukraine has one of the worst indicators of the average mobile Internet speed (25.5 Mb/s). According to this indicator, Ukraine is inferior to Turkey and Poland.
3. The average speed of fixed broadband in Ukraine is 60.6 Mb/s, which is slower than in most European countries. Ukraine is inferior to Romania in this indicator by more than 3 times, and to Poland by almost 2 times.

5. DISCUSSION

5. 1. PRACTICAL GLOBAL AND DOMESTIC EXPERIENCE OF FORMING AND USING BUSINESS MODELS

The most popular model (Shveda N. & Krause O., 2023) of conducting business in digital conditions transformation is the classic "business model canvas" of Osterwalder-Pinier. The main ones elements of this business model are: the value for external customers that it offers the company based on its goods and services; the system of creating this value; assets, used by the company to create this value; financial model of the company that determines cost structures and methods of obtaining profit.

However, in the process of digital transformation, quite a few classic business models have acquired new features and characteristics.

Indeed, the digitalization of a business model encompasses much more than just adopting new technologies; it involves a holistic transformation of the entire business model and its underlying processes. To enhance the effectiveness of the business model, especially for service enterprises, several key components of digital strategies should be considered:

1. Creation of Organization and Technological Platforms - Developing robust organizational and technological platforms lays the foundation for further IT component development within the business. This involves investing in scalable and adaptable infrastructure to support future growth and innovation
2. Effective management of IT Activites - Establishing efficient management practices for units working in the realm of information technology is crucial. This includes strategic planning, resource allocation, and performance monitoring to ensure alignment with business objectives.
3. Information Assistante for Decision Making - Providing decision-makers with reliable information and analytical support is essential for maintaining and enhancing IT infrastructure. Data-driven insights enable informed decision-making, leading to more effective resource allocation and strategic planning.
4. Continuous Provision of IT Services - Ensuring the uninterrupted delivery of high-quality IT services to business units is vital for operational continuity and productivity. This involves proactive maintenance, robust cybersecurity measures, and responsive support mechanisms.
5. Effective Two-way Communications with Users - Building strong and transparent communication channels with users fosters collaboration and feedback loops essential for continuous improvement. Understanding user needs and preferences enables organizations to tailor their IT solutions accordingly.
6. Reducing Total Cost of Ownership - Introducing a service-oriented model and process principles in IT operations can help reduce the total cost of ownership of IT resources. This includes optimizing resource utilization, streamlining workflows, and leveraging economies of scale through cloud-based services and automation.

By focusing on these components, service enterprises can develop digital strategies that not only leverage technology but also drive meaningful transformation across their business model, leading to improved efficiency, agility, and competitiveness in the digital age.

One of the key aspects of digital transformation is changing business models. This is through the use of fast-changing digital technologies to improve processes, create new products and services, and optimize customer interactions and business management. For example, applications and platforms for e-commerce, development of interactive websites and applications for

consumers, data analysis to understand the needs of the audience - all these are made available thanks to digital transformation.

For a successful digital transformation, an enterprise must have flexibility and the ability to constantly adapt. This means not only the use of the latest technologies, but also cultural changes in the organization that promote innovation, openness to change and quick response to market and technological trends.

Data collection and analysis is also an important aspect. With the help of digital tools, businesses can collect large amounts of data about their customers and the market, which allows them to better understand the needs of consumers and respond to changes in time.

Modern world economies use many business models that help form strategic portfolios of enterprises and a high level of its potential. However, advertising has become a rather important element of effective business development, promotion, and recognition. And business models based on advertising are quite common.

The advertising-based model has its advantages for Ukrainian companies. It allows you to provide products and services to a wide audience for free or at a small price, attracting more customers and increasing your popularity. At the same time, advertising becomes a source of income that helps companies increase their profits. It also helps to increase sales, improve the brand and increase the company's awareness.

However, this model also has its drawbacks. Dependence on advertising revenue can be unreliable, especially in the face of changes in the advertising market. In addition, poorly selected advertising can negatively affect the user experience and reduce customer loyalty. Also, the use of advertising may raise data privacy issues, which may affect user trust.

It is important for Ukrainian companies to take into account the specifics of the advertising market, consumer habits and their attitude to advertising. It is also important to ensure an adequate balance between the amount of advertising and the quality of the user experience. Taking these factors into account will help Ukrainian companies to effectively use the advertising-based model with maximum benefit.

Ukrainian companies are also actively using a model based on advertising. Some examples include the following companies:

1. OLX Ukraine: This online marketplace allows users to post ads for free, and their earnings are generated through advertising services for business clients.
2. Ukrainian News Portal: This online publication offers free access to its news, and earns revenue from advertising materials placed on their website.
3. Rozetka: This Ukrainian online store also uses an ad-based model, allowing companies to place advertising banners on their website, which is one of the largest online retail sites in Ukraine.
4. 1+1 Media: This Ukrainian media company uses an advertising-based model to generate revenue from advertising blocks on its TV channels and online publications.

These Ukrainian companies effectively use an advertising-based model to provide free or affordable products and services to their audience, while earning revenue from advertisers.

For developing companies, the strategic approach is the ecosystem model (Ecosystem Model), which is based on relationships with other companies, platforms or organizations. This reinforces the idea that the success of a particular company depends not only on its own actions, but also on how well it fits into the wider ecosystem in which it operates.

In this model, companies collaborate with other firms, creating synergies with shared products, services, or technologies. They can work together to develop products or services, share re-

sources, data or even infrastructure to mutually increase value for customers.

This model can provide a company with greater flexibility, innovation and access to a variety of resources and knowledge. It contributes to the creation of a more complete and universal ecosystem experience for customers, which as a result can increase the competitiveness of the company.

However, there are certain challenges that companies may face when implementing an ecosystem model. This includes the complexity of managing large partner networks, the potential for conflicts between ecosystem participants, and changes in data and information management. Also, the success of the model may depend on the stability of partners in the ecosystem and the effectiveness of managing the relationships between them.

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The ecosystem model has its advantages:

1. Innovation and speed of development: Interaction with other companies facilitates the exchange of knowledge and technology, which contributes to the rapid implementation of innovations.
2. Expanding audiences and markets: Participating in an ecosystem allows companies to gain access to new markets and customers, which leads to increased sales.
3. Greater competitiveness: Collaboration with other companies allows for improved competitiveness, as joint products or services can be more attractive to customers.
4. Efficient use of resources: Resources can be efficiently distributed among ecosystem participants, which allows to reduce costs and increase efficiency.
5. More opportunities for integration: Ecosystems provide an opportunity to easily integrate different products and services, which improves the user experience.

Despite the advantages, the ecosystem model also has its disadvantages:

1. Complex management: Managing a large number of partners and ecosystem participants can be complex and require significant effort.
2. Risk of conflicts of interest: The diversity of participants can lead to conflicts of interest, which can complicate cooperation and affect the effectiveness of the ecosystem.
3. Dependence on the stability of partners: The successful implementation of the ecosystem requires the stability and reliability of the participants, and the inability of partners to fulfill their responsibilities can negatively affect the entire system.
4. Data and Privacy Issues: Data sharing among participants can create data privacy and security issues that need to be effectively addressed.
5. Market volatility: Changes in the market can affect the efficiency of the ecosystem, especially when competitive conditions or technological standards change.

A few companies successfully using the ecosystem model overseas include:

- Apple: With its product ecosystem that includes the iPhone, iPad, Mac, Apple Watch and others, Apple creates an integrated environment for its users that allows them to consume a variety of products and services.
- Alibaba: The Chinese Internet giant produces a wide range of products and services, including e-commerce, financial services, cloud computing and more, creating a large digital ecosystem for shoppers and entrepreneurs.

- Amazon: This American company uses its ecosystem, which includes an online store, cloud services, media services and others, to create a comprehensive environment for its customers and partners.
- Google: Google offers a wide range of services, including search engine, e-mail, cloud services, maps, mobile operating system and more, creating a comprehensive ecosystem for users and businesses.
- Facebook: This social network uses its platform to create an ecosystem that includes social media, messengers, online stores and other services that allow users to communicate, consume content and make purchases in their environment.

Apple is a prime example of successful use of the ecosystem model. Their strategy relies on the interaction between a wide range of products and services, such as iPhone, iPad, Mac, Apple Watch, iTunes, App Store, iCloud and others. This creates a deeply integrated environment that encourages customers to stay in the Apple ecosystem and use more of their products.

The benefits of this model for Apple include:

1. Increased likelihood of selling additional products: Users who already own one Apple product are more likely to purchase other products from the company because they are already familiar with the Apple ecosystem.
2. High customer loyalty: A deeply integrated environment ensures convenience and compatibility between products, which increases customer loyalty to the brand.
3. Increased profitability: With a wide range of products and services that interact with each other, Apple provides a steady stream of income from various sources, such as the sale of hardware, software, cloud storage services and others.
4. Creating a Consumer Ecosystem: Apple is creating an ecosystem that engages not only customers, but also developers, creating a platform for additional applications and services that increase the appeal of their devices.

These factors help Apple maintain its competitiveness in the technology market and ensure sustainable profit growth.

Ukrainian companies are also using the ecosystem model to improve their competitiveness and provide a more complete experience for their customers. Some of the examples include:

- Rozetka: This online retail store has built a wide ecosystem that includes not only e-commerce, but also delivery services, financial services and other related services, creating a convenient environment for customers.
- FUIB (First Ukrainian International Bank): The bank develops an ecosystem of financial services, which includes banking services, payment systems, online banking and other financial products for the convenience of customers.
- EpicentrK: This retail store has created an ecosystem that includes not only merchandise, but also construction services, service center, logistics services and others, creating a convenient environment for customers.

These Ukrainian companies effectively use the ecosystem model to provide a more complete experience for their customers and expand their services to various industries, increasing their competitiveness in the market.

The Platform Model is a business strategy where a company creates a digital or physical infrastructure that allows different groups of users to interact with each other. This interaction may involve the exchange of goods, services, data or even ideas. The platform provides the framework to create an ecosystem where different parties can interact and trade.

Advantages of the platform model include:

- Broadening the network of users: The platform attracts different groups of users, providing a wide range of opportunities for interaction and exchange.
- Increased innovation: The openness of the platform can stimulate innovation and facilitate the emergence of new products and services through the interaction of various parties.
- Increasing the significance of data: The platform can collect large amounts of data about user activity, which allows to improve products and services, as well as provide a personalized experience for users.
- Increased profitability: A wide range of participants on the platform can lead to increased profits through sales commissions, subscriptions or other types of payments.

Disadvantages of the platform model include:

- Risk management: The platform may be highly vulnerable to cyber-attacks and other data security threats, requiring significant defense costs.
- Quality control: Instability in the quality of products or services offered on the platform may adversely affect the reputation and use of the platform.
- Competitive Struggle: Intense competition in the platform market can lead to lower profits and lower market share.

A few notable companies using the platform model include:

- Airbnb: This company provides an online accommodation and travel booking platform where owners can rent out their accommodation and travelers can find and book accommodation.
- Uber: This company provides a mobile application that allows users to order taxi services and passenger transportation, and also provides an opportunity for private drivers to offer their services.
- YouTube: This video platform allows users to upload, view and share videos, creating a space for interaction and sharing of video content.
- Alibaba: This Chinese e-commerce company provides an online platform for businesses and consumers where sellers can sell their goods and buyers can make purchases and pay for them online.
- Facebook: This social network provides a platform for communication, content sharing, and advertising, allowing users to create profiles, add friends, and share messages and media.

Ukrainian companies also use the platform model to create digital infrastructures that facilitate interaction between users. Some examples of Ukrainian brands using this model include:

- OLX: This online service offers a platform for buying, selling and exchanging goods, allowing users to post ads and make deals with each other.
- Rozetka: This online retailer has created a platform that allows customers to order goods and services online and interact with sellers and other users.
- PrivatBank: This bank provides a digital platform that allows customers to bank online, receive financial information and transfer money directly through a mobile app.

These Ukrainian brands use the platform model to create convenient and efficient infrastructures that facilitate the exchange of goods, services and information between users.

Among the many business models that remain relevant in the era of digital business transformation, it is worth highlighting the following:

1. Big Data Analytics Model: This model involves the collection, analysis, and use of large amounts of data for strategic decision-making, trend forecasting, and competitive advantage.
2. The Internet of Things (IoT) model: This model involves the creation of a network of physical devices that interact and exchange data over the Internet, which opens up new opportunities for automating processes and improving user interaction.
3. Artificial Intelligence (AI) model: This model uses intelligent algorithms and systems to automate tasks that previously required human intervention, thereby increasing productivity and efficiency.
4. Blockchain model: This model involves the creation of a distributed database that ensures security and transparency of transactions, opening up new opportunities for financial transactions and supply chains.
5. Sharing Economy Model: This model is based on the principle of sharing resources between users, which allows efficient use of resources and reduction of costs.

These models, along with other innovative approaches, continue to transform today's business, enabling companies to adapt to the rapidly changing digital environment and provide new opportunities for growth and development.

Ukraine, like many other countries, is experiencing an active process of digitization in various spheres of its economy. This creates certain conditions in which the above business models can be particularly relevant:

1. Improvement of efficiency: Implementation of Big Data Analytics, AI and IoT models helps companies in Ukraine to collect and analyze large volumes of data, which contributes to the adoption of better management decisions and optimization of business processes.
2. Security and Transparency: The Blockchain model can be particularly useful for financial transactions and industries where it is important to ensure the security and transparency of transactions.
3. Effective use of resources: The Sharing Economy model can help Ukrainian companies to effectively use available resources, reducing costs and increasing competitiveness.
4. Increasing competitiveness: The implementation of these digital models helps Ukrainian companies to remain competitive in the global market, creating new opportunities for innovation and development.
5. Stimulating the economy: The implementation of digital business models contributes to the creation of new jobs, infrastructure development and increasing the country's economic potential.

These models are key to ensuring the competitiveness of Ukrainian business in the rapidly changing digital environment and global competition.

Taking into account the experience of foreign companies, Ukrainian firms should carefully consider local conditions and market features. Adapting foreign experience to local needs and cultural differences can help ensure success.

Cooperation with foreign companies can become an important source of knowledge and technology exchange. However, it is worth remembering the importance of own development and innovation. Ukrainian firms must create their own unique competitive advantages based on local needs and capabilities.

Drawing conclusions from the experience of other countries, it is important to adapt this knowledge to Ukrainian realities and take into account the peculiarities of the local market. This will allow Ukrainian firms to effectively use the potential of digitalization and strengthen their competitiveness on the international arena.

Therefore, in our opinion, the business model of the enterprise in the conditions of digital transformation is aimed at providing competitive advantages with the use of digital technologies (such as artificial intelligence, data analytics, the Internet of Things, blockchain and others) and the development of advantages by improving its digital solutions, as well as with using strategic management to determine the directions of the enterprise's use of digital technologies to achieve its goals and intentions.

6. CONCLUSIONS

Drawing conclusions from the experience of other countries, it is important to adapt this knowledge to Ukrainian realities and take into account the peculiarities of the local market. This will allow Ukrainian firms to effectively use the potential of digitalization and strengthen their competitiveness on the international arena.

Therefore, in the digital age, business conditions are constantly changing, requiring companies to adapt to new technologies and management models. Studies of various business models, which are successfully used both abroad and in Ukraine, show the importance of flexibility and readiness for innovation.

Ukrainian companies should study and adapt foreign experience, but taking into account local conditions and market features. Cooperation with foreign partners can be a valuable source of sharing knowledge and resources, but developing one's own competitive advantages remains a key success factor.

Understanding digital business models, such as Freemium, Subscription, Ad-supported, Ecosystem and Platform, allows companies in Ukraine to choose the optimal strategy for achieving competitiveness and sustainable development in the digital economy. Taking into account the specifics of the Ukrainian market and using unique opportunities will allow companies to successfully integrate into the global economy and achieve stable growth.

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