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Current trends in digital transformation and their impact on the national economy

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Abstract. In today's realities, digital transformation plays a very important role in the economic development of the country. This is due both to the high rate of scientific and technological progress and to the common within the economic relations, consumer preferences. Thus, it remains important to assess the impact of digitalization on the welfare of international and national economies. The research examines the current situation in Azerbaijan, one of the countries in which the principles of digital transformation are being actively implemented. The main research methods were analysis, induction, as well as methods of statistical data processing. The research assessed the main reason for the acceleration of the pace of digital transformation in the world and Azerbaijan, that being the beginning of the COVID-19 crisis. Although it was a problem for many companies at the initial stage, subsequently it allowed them to fit into the new economic realities. Thus, at the moment in Azerbaijan, there is a fairly well-developed system for managing the processes of digitalization. The national policy of the country is aimed at motivating enterprises to change the principles of their functioning into more innovative ones, which is quite well received by the institutions responsible for this. A particularly important role is played by financial and non-financial support for small and medium-sized enterprises, the provision of educational programs for citizens in terms of increasing literacy about the latest digital technologies, and the introduction of digital technologies in public administration processes, in which Azerbaijan has been able to achieve significant success. However, there are still various problems that require a solution from the authorities in the shortest possible time. Thus, this study brings new knowledge to the theory of modern digital transformation and allows us to consider the current state of the Azerbaijani economy in more detail

Keywords: digitalization; management; customer communication; public administration; innovation

Introduction

Globalization has had an increasing impact on business, forcing it to change (Kraus *et al.*, 2021a). Therefore, companies need to constantly look for opportunities to improve their competitive position in the market, and one of the tools to achieve this is digitalization. Digitalization is believed to cause increased productivity and lower costs through better information processing and communication, simplified customer communication capabilities (Nadkarni & Prugl, 2021). It is defined as the process of using digital technologies to create or improve existing business models and processes, and to support the transformation of organizational structures, internal resources, and processes of interaction with internal to external actors (Plekhanov *et al.*, 2022). At its core, it is the inclusion of business processes in the digital dimension: for example, introducing electronic payments, opening online venues to sell products, introducing document management through online services, etc. (Reis *et al.*, 2020; Bouncken *et al.*, 2021). However, this process is quite time-consuming, as it creates problems not only in terms of the innovation capabilities of the enterprise but also the company management (Aliyeva, 2023).

After the COVID-19 pandemic began, the problem of digitalization of business became even more urgent (Amankwah-Amoah *et al.*, 2021; Gahramanova, 2023). This is primarily due to all the restrictions that were imposed by the state, which did not allow citizens to move freely, visit public institutions, etc. (Spiliopoulos, 2022). An alternative to this, people sought technologies of remote interaction, which greatly influenced most processes in the world economy (Kim *et al.*, 2021). Thus, it remains relevant to consider how the rapid development of digital technology has affected the development of individual countries. The research prioritizes the national economy of Azerbaijan.

Many scholars have studied the development of digitalization in individual countries and the world. Thus, C.S. Pereira *et al.* (2022) considered general trends in digital transformation based on data from Portuguese companies. They propose a model to increase the efficiency of companies in this country in terms of their transition to the latest technology. However, this methodology cannot be applied to enterprises in other countries, which makes this study somewhat limited.

The process of digitalization in developing countries was considered by M. Matthes & S. Kunkel (2020). Scientists describe the positive impact of digital transformation on these states but pay little attention to the problems associated with this transition. In turn, A. Małkowska *et al.* (2021) described both the features of the process of digitalization in general and its trends in the European Union. However, although this study was published in 2021, it does not look at changes after the start of the COVID-19 pandemic. The study of digitalization trends in Azerbaijan was conducted by G. Mykhailiuk *et al.* (2021).

Thus, the research aims to describe the current state of digital transformation in various industries and sectors of the Azerbaijan. This will not only provide a better understanding of the peculiarities of the country's development in general but will also enable better implementation of the state policy in this area.

Materials and Methods

One of the sources that did provide some data on the level of digitalization development was the official website of the World Bank (2020). To estimate the average speed of the Internet in Azerbaijan and some other countries, the Speedtest Global Index (n.d.), developed by them, calculate the average speed per month, measured on the service by users, in different countries and cities was used. The study used

data for December 2022. Moreover, the authors used some characteristic, particularly legal, sources such as Order of the President of the Republic of Azerbaijan “State Program for the Development of Communications and Information Technologies in the Republic of Azerbaijan for 2010-2022 (Electronic Azerbaijan)” (2010), Law of the Republic of Azerbaijan No. 602-IIH “On Electronic Signature and Electronic Document” (2004), Order of the President of the Republic of Azerbaijan on Approval of “Azerbaijan 2030: National Priorities for Socio-Economic Development” (2021).

Another source worth mentioning is the Azerbaijan digital hub (2023) project, the data from which was used to describe the prospects and the essence of this project, which is probably one of the most ambitious of all those being implemented in the country. In addition, reports of some international organizations the report “Beyond COVID-19 advancing digital business transformation in the eastern partner countries” (2021) were used. The materials of the Azerbaijan small and medium business development agency (2023) and the Decree of the President of the Republic of Azerbaijan “Strategic Roadmap for the development of telecommunications and information technologies in the Republic of Azerbaijan” (2016) were also considered.

The approach used in the research is systematic, which allowed to show the process of digital transformation in Azerbaijan through its components (digitalization of enterprises, state organizations, the introduction of similar technologies in education, etc.) In turn, one of the main methods that were used during the study was analysis. With its help, a lot of information was processed, which was subsequently used to form the main research conclusions. In addition, the historical method was actively used, which allowed evaluating and describing the development of trends of digital transformation in the world and Azerbaijan. With the help of induction, a general vision of the state of digital transformation in the country was formed based on certain known indicators. The deduction, on the other hand, made it possible to find the reasons for the inefficiency of digitalization in the country. In turn, the statis-

tical method made it possible to evaluate some data on the processes of digital transformation in Azerbaijan, and the graphical method made it possible to depict the obtained data arrays in the form of graphs and tables for easier perception and analysis.

Results

The beginning of digital technology development dates to the 1960s when modern principles of this kind of management began to spread in some enterprises, in particular the International Business Machine (IBM): the company developed and provided the Sabre Global Distribution System, which allowed the automation of airline and hotel reservations (Abdullayev, 2022). The second stage in the development of digitalization counts from 1980-1990, when many researchers began to study the possibilities regarding the implementation of information technology in organizational structures, as well as to evaluate its impact on the subsequent performance of these subjects (Drucker, 1988). Stanford Federal Credit Union began using online banking in 1994; subsequently, with the commercialization of computer technology and the spread of the Internet, the topic of digital transformation began to gain momentum and became particularly relevant with the onset of the COVID-19 pandemic (Abidi *et al.*, 2022). The authors have already mentioned that the restrictions imposed during the crisis were one of the main reasons for the rapid development of digitalization processes after 2020. The reason for this was the restrictions imposed by states, which forced the population and its businesses to adapt to the new conditions primarily using digitalization tools (Patrucco *et al.*, 2022). Nevertheless, the trends in this process have differed from country to country. It is important to consider them since they have guided the main existing trends of this component of the economy for most states.

It is worth considering data that indirectly characterize the processes of digital transformation in Azerbaijan. Figure 1 shows data on the number of cellular subscriptions for every 100 people in some countries and the world.

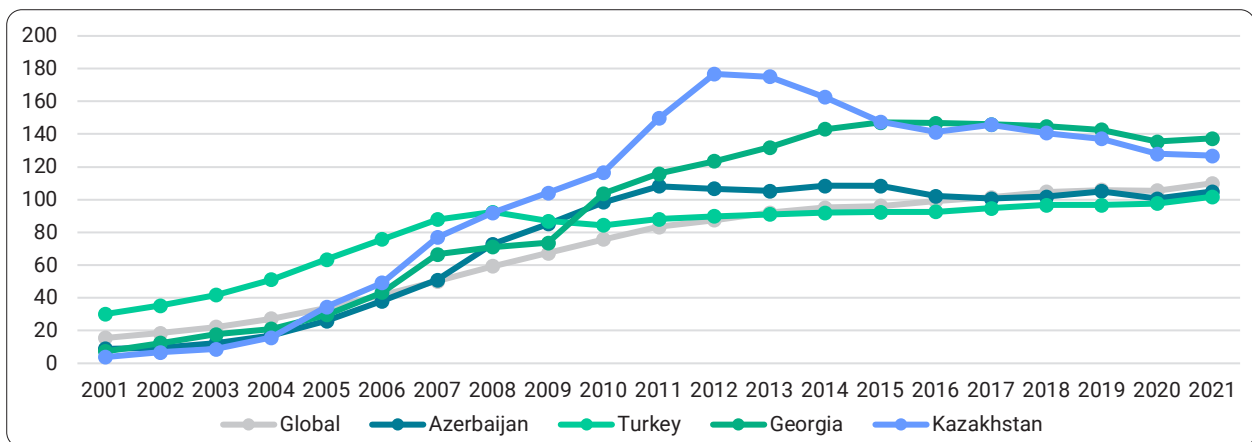


Figure 1. Data on the number of mobile subscriptions in some countries and the world in 2001-2021, the number of subscriptions per 100 people

Source: compiled by the authors based on Mobile cellular subscriptions (n.d.)

As seen in Figure 1, in Azerbaijan the number of mobile subscriptions (in fact, the level of cell phone usage) is close to

the global average. Figure 2 shows the number of subscriptions to fixed broadband Internet access per 100 people.

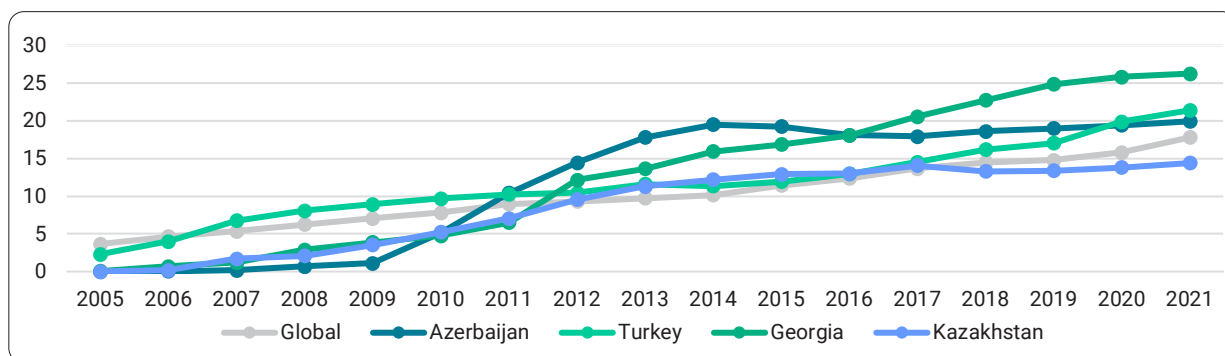


Figure 2. Number of subscriptions to fixed broadband Internet access in 2005-2021, number of subscriptions per 100 people

Source: compiled by the authors based on Fixed broadband subscriptions (n.d.)

As seen in Figure 2, the number of subscriptions to fixed broadband Internet access in Azerbaijan is at a high level, at least higher than the global average, which is also a good

indicator in terms of the level of development of digitalization. Based on Table 1 it is possible to also evaluate the Internet speed in Azerbaijan in comparison with some other countries.

Table 1. Data on mobile and broadband Internet speeds in Azerbaijan and other countries in 2023

Mobile internet			Fixed broadband internet		
Rating number	Country	Speed (MB/sec)	Rating number	Country	Speed (MB/sec)
1	Qatar	169.51	1	Singapore	225.71
2	United Arab Emirates	153.09	2	China	223.49
3	Norway	128.14	3	Chile	220.96
60	Spain	35.1	115	Antigua and Barbuda	27.3
61	Azerbaijan	34.93	116	Azerbaijan	27.15
62	Georgia	33.7	117	Iraq	27.1
139	Venezuela	5.95	176	Turkmenistan	2.4
140	Cuba	5.61	177	Afghanistan	2.29
141	Afghanistan	5.18	178	Cuba	1.91

Source: completed by the authors based on Speedtest Global Index (n.d.)

As can be seen from Table 1, the speed of data transmission and communication in Azerbaijan is quite close to the world average, which indicates a good level of development and distribution of these technologies. The main goals for Azerbaijan to ensure the digitalization of its industries are:

- create an information environment and ensure information security;
- improve existing information and communication technologies (ICT) structure management;
- increase the productivity and operational efficiency of the business environment;
- digitize the main processes that take place in the context of government regulation.

High-quality infrastructure plays the most important role in ensuring the availability of digital transformation development in the country. The main advantage of Azerbaijan in the digital transformation is the flexibility of the

country in terms of the ability to apply and use the latest digital technology at a relatively higher speed than other countries. In addition, the country has significant human capital. This is evidenced by the Human Capital Index (World Bank, 2020), which is 0.6 in 2020 for Azerbaijan (with a minimum of 0 and a maximum of 1). In addition, the number of informational technology (IT) professionals in the country is increasing every year, and there are significant preconditions for the further active development of this sphere (Lefebvre & Renard, 2016).

Another issue is the financial capacity of the country to implement such technologies (in other words, the availability of financial capital or capital funds (Cooper *et al.*, 1994). There are three sources of capital: investment (internal or external) and government funding. To begin with, it is important to consider the state support component: the country's 2023 planning budget is in deficit (State

budget of Azerbaijan..., n.d.), which suggests that it may be difficult to allocate funds for such initiatives. Nevertheless, if the authorities want to implement digital technologies in enterprises, they should increase the possibilities for funding projects in this area when drafting the 2024 budget, improving existing and forming new relevant support programs (Croce *et al.*, 2019). As for the country's innovation attractiveness, it is considered quite high despite the unfavourable external conditions (Diugowanets & Kurei, 2021). Thus, Azerbaijan is still able to attract foreign investment, while the domestic culture of investment among the population remains underdeveloped, the reason for which is primarily the socialist past. Therefore, it is important not only to maintain a high level of investment attractiveness of the country but also to develop a culture of investment among citizens. In general, the country has sufficient opportunities and capital for the development of digital technology.

One of the important components of modern digitalization in Azerbaijan is online learning. Together with other components of digitalization, this sphere developed quite actively during the COVID-19 pandemic: online platforms such as Coursera, Udemy, Khan Academy, and others gained popularity. The use of similar training methods will likely increase the financial literacy of the local population, which is especially relevant given the ongoing reforms in the field of economy and finance. There are also certain actions on the part of the state in the context of educational development. In particular, the Ministry of Digital Development and Transport established the "Information and Communication Technology Application and Training Center", which should allow the population and entrepreneurs to receive education services in information and communication technologies and their subsequent application in practice. In addition, under the "E-Government" project, citizens can improve their skills through certified, professional, and corporate training. Another promising program implemented by Azerbaijan is the Azerbaijan Digital Hub (2023). This project is also quite extensive, as it includes four smaller components, namely the Digital Silk Road project, the construction of regional data centers, the Internet traffic exchange center project, and the formation of a unified digital ecosystem. Azerbaijan Digital Hub (2023) should become a modern energy and transport center, as well as one of the important components of the transformation of the country into a regional digital center. In general, this program can significantly accelerate digitalization in Azerbaijan and build a new backbone infrastructure in the field of telecommunications.

The concept of "e-government" plays a major role in modern Azerbaijan. Its main objectives are to minimize the distance between citizens and civil servants through information technology solutions and reduce bureaucratic barriers in the relationship between them. Citizens can use the services of state bodies such as the Ministry of Transport, Communications and High Technologies, the Ministry of Labor and Social Protection, the Ministry of Health, the Ministry of Justice, and others (Abdullayev *et al.*, 2022).

This facilitates the process of providing social and economic services and makes it possible to provide them in real-time, eliminating time lags, which are relevant in any interaction between citizens and public institutions. Thus, to a large extent, the quality and pace of digitalization in the country depend on the capabilities of the state and the activities of its public authorities. Economic policy authorities should support the implementation of digitalization in the country and ensure the internal development of infrastructure (creation of incubators, high-tech parks, and support for educational institutions). In Azerbaijan, the basis of policy in terms of digital technology is the connection and development of e-government services, as well as ensuring quality improvements in information and communication technologies. Therefore, the state provides some measures for the development of digital culture among the population (especially students and entrepreneurs), as well as the application of innovative digital solutions by companies. The Ministry of Digital Development and Transport oversees the implementation and application of these principles: in general, its goal is to promote innovative and high-tech technologies in the country, as well as the "made in Azerbaijan" brand. Regarding legal framework, Azerbaijan, compared to other Eastern countries, has a high level of development: in particular, laws on electronic signature were adopted and the project "Information Security and Cybersecurity Strategies for 2021-2025", which should bring more clarity to the country's legislation, is being developed.

Decree of the President of the Republic of Azerbaijan "Strategic Roadmap for the Development of Telecommunications and Information Technologies in the Republic of Azerbaijan" (2016) was also an important document to guide the development of digital transformation in the country, although it expired in 2020, and a new similar document has not yet been adopted. Another important document is the Order of the President of the Republic of Azerbaijan on Approval of "Azerbaijan 2030: National Priorities for Socio-Economic Development" (2021), which should describe the tools for the development of digitalization in the country.

Particular attention should be paid to how the latest technologies of small and medium-sized enterprises (SMEs) are applied (Kraus *et al.*, 2021b). This is related primarily to the need to maintain a high level of competitiveness in the internal environment of the market because, without the development of SMEs, the market can turn into an oligopoly or monopoly. The Small and Medium Business Development Agency of Azerbaijan (Azerbaijan small and..., 2023) is responsible for the development of SMEs in Azerbaijan. It provides non-financial support through regional SMEs Development Centers that offer training and advice to entrepreneurs to improve and develop their skills. However, it is worth noting that the government also provides such businesses with financial support, in the form of grants and loans at preferential interest rates. In this case, it is important to note that many of their initiatives are in one way or another related to the development of innovativeness and

digital literacy. And although executive organizations in the country do not have a coherent program to ensure the development of SMEs, they are generally quite effective in supporting these enterprises. Another institution influencing the digitalization of companies is the “Centre for the Fourth Industrial Revolution in Azerbaijan” (2021). This center is responsible for coordinating initiatives in the field of economy and the fourth industrial revolution; one of its goals is to ensure the fastest possible digital transformation of companies and enterprises in Azerbaijan.

Financial services play a major role in the development of digital transformation, which makes them not only faster and quicker, but also cheaper (through lower transaction costs). The Central Bank Digital Currency (CBDC) concept, which can also be rightly considered one of the components of digital transformation, is becoming increasingly widespread in many countries. The introduction of such a means of payment will help increase the efficiency of the central bank's management of the economic system in several ways. Firstly, it will make it possible to more clearly track money flows in the country, determine the number of funds in circulation, and, in general, better understand the monetary components characteristic at a certain time in the economic environment of the state. Second, it will make it possible to instantly block or cancel any transactions, which is especially relevant to the fight against crime. It will also make money laundering processes much more difficult. Thirdly, it will improve the efficiency of the state's distribution of social services, since it will make it possible to prohibit citizens from using the funds issued to them for other purposes: for example, to buy funds that cannot be classified as necessities (Korsunskaya *et al.*, 2022).

Thus, this concept greatly increases the factor of manageability of the economic and financial system and should improve the decisions made by central banks in terms of monetary policy, although it deprives citizens of the factor of confidentiality, which also entails its risks, especially for non-democratic countries. Nevertheless, it is already clear that these methods of payment will be spread in many countries of the world. But this concept has not been developed in Azerbaijan yet because the Central Bank of the country announced only in 2022 about the development of the concept of digital manat with the use of foreign developments (which are not numerous in the world) (Central Bank preparing..., 2022). Thus, working prototypes of CBDC in Azerbaijan should be expected in a few years at the earliest.

Certain innovations occur in the transport industry as well, but they are not as noticeable as in other industries. The main problems that characterize this industry are the lack of qualified personnel, low productivity, lack of financial resources, high cost of equipment or its absence, shortcomings in the provision of certain types of services, and some others (Revak & Gren, 2022). All this requires a solution from the governing bodies, which is the Ministry of Transport, Communications, and High Technology. Although some work in the context of the

transition to digital logistics is taking place, the authorities must seek approaches to accelerate the transition to the latest technologies in the sector.

Discussion

It is worth noting that digital transformation is an important component of the development of not only individual enterprises but also the country. This is described by M. Ebbini (2022). It allows to increase the reduction of the costs of enterprises, increase their competitiveness in international markets, and thus leads to higher revenues (and tax revenues to the state budget). However, digitalization makes it possible to achieve some useful social effects as well. In particular, because of its high productivity, one created place in an industry (related to innovation or technology) can create 3-4 more in related industries. It also helps to reduce or prevent the “brain drain” effect, which remains very common in many developing countries.

The peculiarities of the development of digital transformation in the world during the COVID-19 crisis were considered by J. Amankwah-Amoah *et al.* (2021). They confirm the widespread view that the pandemic was the “great accelerator” in the context of changing global trends within the framework of digitalization. The crisis was a catalyst for the increased use of all sorts of technologies, among them video telephony, 5G digital networks, the Internet of Things, cloud computing, machine learning, and artificial intelligence. Scientists also argue that the “psychological dividend” of COVID-19 played a big role in this issue. Thus, those managers who previously were afraid to use the latest technology to manage companies have been forced to do so because of the prevailing circumstances. And although the pandemic has had a positive impact on the development of these processes, there are still some factors that continue to hold back its pace. Following the researcher, the most important among the described factors is the inflexibility of corporations, which remained quite strong, and their unwillingness to apply such technologies, including financial.

T. Guarda *et al.* (2021) described general trends related to digital transformation and technology development in the world. They point to the significant role of digital technologies and the impact they are shaping people and businesses. Researchers write that the development of such innovations significantly increases the level of competitiveness between companies in different countries and allows to improve the efficiency of internal processes in enterprises. Nevertheless, many managers are still probably not ready for such a drastic transition to new principles of interaction. Note that the research was conducted in 2021: many changes happened in recent years and digital technologies have become more and more common in companies and the general population. Thus, if the problem of managers' unpreparedness for such changes within enterprises is still relevant, it does not affect their development so much now. In addition, its relevance will rapidly decrease due to the increasing use of digital technology, as

well as the arrival of new young experts. The researchers prioritize 5G technology, which should reduce the delay in receiving or sending information to one millisecond, making possible the development of many other innovations. In addition, the scientists note the role of the development of artificial intelligence and mention many industries in which its application could be particularly useful, in particular medicine, marketing, finance, video games, advertising, and others (Zaki & Fernandez, 2023).

G. Mykhailiuk *et al.* (2021) in their study describe the features of digitalization in Azerbaijan during the COVID-19 crisis. They conclude with the role of digital transformation in the country and the benefits that can be achieved in the case of its proper implementation. In addition, the researcher describes those changes in the country in its various spheres related to digitalization. Scientists believe that they will give an opportunity to qualitatively transform the country and achieve many of its strategic objectives. K. Abdullayev (2022) also examines the current state and future trends in the development of digital transformation in Azerbaijan and indicates significant potential in this area. In other words, the scientist states that the process of digitalization in the country should go faster and with fewer problems than in other countries. A completely different position in the context of the digital transformation of Azerbaijan is taken by D. Plekhanov *et al.* (2022). Following them, the country lacks a clear initiative for digitalization on the part of both private entrepreneurs and the authorities. However, it is difficult to agree with this thesis, because, at least on the part of the state, there is an active activity in the field of digital transformation. As already described in the studies, it is observed in educational projects, the introduction of technology in public administration, and the implementation of the Azerbaijan Digital Hub (2023). At the same time, it is possible to agree with the thesis about the lack of distinct initiatives on the part of entrepreneurs. Nevertheless, the Azerbaijani authorities also implement some programs aimed at cooperation with them, for example, training programs aimed at developing entrepreneurs' understanding of the role of digital technology in modern business activities (Ismayil-zada, 2023). In addition, sooner or later, companies themselves will come to understand the role of innovation in business success, which will ensure their interest in this process in the future.

The study also describes the need for state authorities of Azerbaijan to pay more attention to education, creating all kinds of training programs, including those in institutes or universities. Particular attention is devoted to the digitalization of agriculture, as the latest technology is now critical to ensure the effective functioning of the agricultural sector and increase its productivity (Vdovenko *et al.*, 2023). For this purpose, the study recommends forming comprehensive support for the development of the industry, the essence of which is to create such conditions in which companies in the agricultural sector could more effectively use and apply digital technologies. At the

end of the research, the state of e-commerce in Azerbaijan is described, which, following the authors, is currently at a low level, and the economic environment is unfavourable for its development. Therefore, it is offered to develop infrastructure and create such an internal ecosystem that would form better conditions both for enterprises and consumers in terms of using e-commerce services. In general, such a study is indeed very qualitative and plausibly describes the existing realities of digital transformation in Azerbaijan. Nevertheless, it is worth noting that some of the above-mentioned components are already better developed than those described in the study of the Asian Development Bank: this concerns education, the provision of public electronic services, the state of small and medium businesses.

Conclusions

Thus, the study assessed the general features of digital transformation in the political and economic realities of Azerbaijan. It was shown that in Azerbaijan, as well as in the rest of the world, the rate of digitalization of all types of enterprises has increased very much. This is primarily caused by the beginning of the COVID-19 pandemic and the consequences in the form of restrictions that are associated with it. In addition, some indicators have been evaluated to indirectly assess the overall state of digital transformation in the country. They were largely equal to the global average, which may indicate that Azerbaijan is keeping pace with the times and holds a good bar in terms of the digitalization of the economy.

It is worth noting that even before the pandemic, the government was developing a large-scale plan for the digital transformation of Azerbaijan. As part of the management of the authorities, a large infrastructure of bodies was created, whose goal is to increase the effectiveness of digitalization in all kinds of spheres. In many areas, they have been able to achieve significant success. For example, local small and medium-sized enterprises have significant opportunities for staff training in the context of digital literacy, financial incentives for the introduction of innovative technologies, etc. It is also worth mentioning the successes in the application of digital transformation technologies in public administration and public services, as well as in the provision of educational services in the field. Thus, the subsequent implementation of such technologies in enterprises and other institutions will allow the country to achieve significantly greater efficiency of operation and improve its competitive ability in international markets.

The construction of various kinds of mathematical econometric models, which could more accurately assess the future benefits or drawbacks of digital transformation in Azerbaijan, is promising for further research. In addition, it is worth considering opportunities to increase the rate of digitalization in the country and to ensure its greatest efficiency. It also remains relevant to consider the country's innovation sector, especially the activity of small and medium-sized enterprises in it.

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Conflict of Interest

None.

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Сучасні тенденції цифрової трансформації та їх вплив на національну економіку

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Анотація. У сучасних реаліях цифрова трансформація відіграє дуже важливу роль в економічному розвитку країни. Це пов'язано як з високими темпами науково-технічного прогресу, так і з поширеними в рамках економічних відносин споживчими уподобаннями. Таким чином, актуальною залишається оцінка впливу цифровізації на добробут міжнародної та національної економік. У дослідженні розглядається поточна ситуація в Азербайджані, одній з країн, в якій активно впроваджуються принципи цифрової трансформації. Основними методами дослідження були аналіз, індукція, а також методи статистичної обробки даних. У ході дослідження було оцінено основну причину прискорення темпів цифрової трансформації у світі та Азербайджані - початок кризи, спричиненої COVID-19. Хоча на початковому етапі вона стала проблемою для багатьох компаній, згодом це дозволило їм вписатися в нові економічні реалії. Таким чином, на даний момент в Азербайджані існує досить розвинена система управління процесами діджиталізації. Національна політика країни спрямована на мотивацію підприємств до зміни принципів свого функціонування на більш інноваційні, що досить добре сприймається відповідальними за це інституціями. Особливо важливу роль відіграє фінансова та нефінансова підтримка малих і середніх підприємств, забезпечення освітніх програм для громадян з точки зору підвищення грамотності щодо новітніх цифрових технологій, а також впровадження цифрових технологій у процеси державного управління, в яких Азербайджан зміг досягти значних успіхів. Однак все ще існують різні проблеми, які потребують вирішення з боку влади в найкоротші терміни. Таким чином, це дослідження вносить нові знання в теорію сучасної цифрової трансформації та дозволяє більш детально розглянути поточний стан азербайджанської економіки

Ключові слова: цифровізація; управління; комунікація з клієнтами; державне управління; інновації