



RS Global
Journals

Scholarly Publisher
RS Global Sp. z O.O.
ISNI: 0000 0004 8495 2390

Dolna 17, Warsaw, Poland 00-773
Tel: +48 226 0 227 03
Email: editorial_office@rsglobal.pl

JOURNAL	International Journal of Innovative Technologies in Economy
p-ISSN	2412-8368
e-ISSN	2414-1305
PUBLISHER	RS Global Sp. z O.O., Poland
ARTICLE TITLE	DEVELOPMENT OF THE DIGITAL ECONOMY IN THE REPUBLIC OF UZBEKISTAN
AUTHOR(S)	Makhkamova Mamlakat Abdukadirovna, Allaeva Gulchekhra Zhalgasovna
ARTICLE INFO	Makhkamova M. A., Allaeva G. Zh. (2021) Development of the Digital Economy in the Republic of Uzbekistan. International Journal of Innovative Technologies in Economy. 2(34). doi: 10.31435/rsglobal_ijite/30062021/7600
DOI	https://doi.org/10.31435/rsglobal_ijite/30062021/7600
RECEIVED	26 April 2021
ACCEPTED	10 June 2021
PUBLISHED	15 June 2021
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License .

© The author(s) 2021. This publication is an open access article.

DEVELOPMENT OF THE DIGITAL ECONOMY IN THE REPUBLIC OF UZBEKISTAN

Makhkamova Mamlakat Abdukadirovna, Doctor of Economic Sciences (DSc), Professor, Head of the Department of Tashkent State Technical University

Allaeva Gulchekhra Zhalgasovna, PhD, assistant professor of Tashkent State Technical University

DOI: https://doi.org/10.31435/rsglobal_ijite/30062021/7600

ARTICLE INFO

Received 26 April 2021

Accepted 10 June 2021

Published 15 June 2021

KEYWORDS

Digital economy, digitalization, digital technologies, information technology, economic efficiency, information society, public administration, innovation.

ABSTRACT

The article shows the main aspects of the formation and development of the digital economy in the Republic of Uzbekistan. Such concepts as digital economy, digitalization, digital technologies are considered. The promising directions of development of the national economy in the field of ICT are investigated, the urgent tasks of digital development in the republic are considered. The main achievements in the implementation and use of information technologies in public administration and various sectors of the economy are presented.

Citation: Makhkamova M. A., Allaeva G. Zh. (2021) Development of the Digital Economy in the Republic of Uzbekistan. *International Journal of Innovative Technologies in Economy*. 2(34). doi: 10.31435/rsglobal_ijite/30062021/7600

Copyright: © 2021 Makhkamova M. A., Allaeva G. Zh. This is an open-access article distributed under the terms of the **Creative Commons Attribution License (CC BY)**. The use, distribution or reproduction in other forums is permitted, provided the original author(s) or licensor are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Introduction. Currently, the level of development of digital technologies used in all economic, state and other spheres of the state determines not only its economic and social development, but also greatly increases the country's competitiveness in the world arena. The next stage of transformation of business and social models is unfolding, caused by the emergence of new generation digital technologies, which, due to the scale and depth of influence, are called "end-to-end" - artificial intelligence, robotics, the Internet of things, wireless technologies and a number of others.

Main part. In the Address to the Oliy Majlis of the President of the Republic of Uzbekistan Shavkat Mirziyoyev on January 24, 2020, important tasks were noted, such as "Completion and implementation in two months of the development of the "Digital Uzbekistan - 2030" program, which provides for the renewal of all sectors of the economy based on digital technologies, an increase in the share the digital economy in GDP by at least 30%, thereby reducing corruption, a radical change in the digital economy this year, the implementation of the "1 million programmers" project with our foreign partners in order to further accelerate work on the development of science and the digital economy and the training of highly qualified specialists in this area. "

Let us consider in more detail the very concept of the digital economy and digitalization. The term "digital economy" is used to describe markets that focus on digital technologies and reflect the transition from the third industrial revolution to Industry 4.0, that is, the replacement of analog electronic and mechanical devices at the end of the 20th century to digital [6]. There is a wide variety of interpretations of the "digital economy".

So, in the fundamental work of R. Bucht, R. Hicks, over two dozen meanings of the term are given and some uncertainty of their boundaries is noted [6]. The concept of "digital economy" was introduced into circulation by N. Negroponte in 1995 as a metaphor for a new information culture, the

organic part of which was digital content (music, films, paintings, games, etc.), which was initially defined as "computerization".

The economy of the new order is a product of the development of the information society. Over the past 30 years, it has gone through three stages:

- 1990s - the emergence and development of the Internet, with which connect qualitative shifts in production and management, which have become the basis of the digital economy;
- early 2000s - when the digital economy was viewed as an Internet-based business activity (e-commerce, including trade in digital content);
- 2010s - the digital economy began to be considered in conjunction with the development of ICT and the introduction of digital sensors (Internet of Things), which created the preconditions for changes in business processes and the economic system of enterprises.

Thus, we can say that the accelerated introduction of digital technologies in the economy and social sphere is an ambitious goal that is being successfully implemented only in a very few leading countries. It is achievable only if a number of essential conditions are met.

Firstly, business and the social sphere must be ready for digital transformation, development strategies must mature and take shape, implying a radical change in the ways of organizing and conducting business through the planned intensive introduction of digital technologies, which are in demand by organizations and promising stakeholders a return on investing their own funds.

Secondly, a relatively mature sector of technological supply should emerge in the country, which, if it does not claim to be an international leader, is at least capable of a quick transfer and adaptation of foreign technological solutions and a rapid increase in the scale of its own activities.

Thirdly, the population's demand for digital technologies should constantly grow, since it is the needs and capabilities of consumers that ultimately determine the adequate demand for digital technologies from organizations, primarily in the B2C field [6].

According to experts from the World Economic Forum, the potential of digital transformations (and as a consequence of the massive use of digital technologies to reduce various costs, and as a means of optimizing processes in the economy, society, and as a result of the emergence of new industries) is estimated at over 100 trillion dollars [7]. Many countries have identified digital development strategies as high priority and are implementing a set of measures to digitize the economy and society.

Returning to the term "digital economy", it should be noted that the directions, forms and types of activities associated with the use of ICT, digital technologies and the analysis of big data are developing so rapidly that even definitions cannot keep up with them. In this regard, both the clarification of the conceptual apparatus of digitalization and the assessment of its current state and prospects are relevant, which requires appropriate theoretical substantiation of this phenomenon. It should be pointed out to its two main aspects: digitalization and the digital economy.

The first is a long, complex and multidimensional process of transferring production and management technologies and information resources into a state suitable for the effective use of digital devices and technologies and involves the achievement of the following goals [6]:

- cheaper and more reliable collection, systematization, transmission and analysis of data (due to discrete sensors - the Internet of things, RFID tags, etc.);
- cost reduction and simplification of communications in the economy and society (digitalization of content and communication channels);
- creation of a system for multi-interaction of people and business processes vertically and horizontally (inter-organizational digital systems).

It should be noted that the reform processes carried out in the Republic of Uzbekistan in recent years are accompanied by the active introduction of modern information and communication technologies, the availability of telecommunications services for the population is increasing, various types of public services are also gradually transferred to electronic form, more and more often this type of service is provided on the principle of "one window". We also note that the position of Uzbekistan in the UN rating on the development of electronic government is consistently strengthening.

In order to accelerate the development of digital technologies, improve the efficiency of public administration, improve the quality of the provision of public services, create a favorable environment for the development of innovative technologies, and, ultimately, increase the country's competitiveness, such documents were adopted as the Resolution of the President of the Republic of Uzbekistan "On Approval of the Concept of the National strategy "Digital Uzbekistan 2030" (Id-10574 PROJECT),

Decree of the President of the Republic of Uzbekistan dated February 19, 2018 "On measures to further improve the field of information technology and communications"; Decree of the President of the Republic of Uzbekistan No. PD(President Decree)-5598 dated December 13, 2018 "On additional measures to introduce the digital economy, electronic government and information systems in the state administration of the Republic of Uzbekistan"; in the Action Strategy for five priority areas of development of the Republic of Uzbekistan for 2017-2021, issues of wide and effective implementation of the digital economy and ensuring information security in the country are identified as priority tasks on the basis of the decree of the President of the Republic of Uzbekistan dated July 3, 2018 "On measures to develop digital economy in the Republic of Uzbekistan ", as well as other regulatory legal acts.

The main tasks of digital development of the Republic of Uzbekistan are the following [1]:

- ensuring a systematic and consistent process of development of the digital economy, e-government, information, communication and innovative technologies;

- increasing digital literacy of the population and training highly qualified personnel in the field of digital technologies, creating favorable conditions for retraining personnel, popularizing remote work methods;

- expansion of telecommunication infrastructure and data processing centers, formation of the necessary infrastructure to provide the scientific community and implement innovative projects;

- improving the legal regulation of the digital economy, creating "regulatory sandboxes" for conducting legal experiments related to the regulation of relations when introducing new technologies;

- increasing the efficiency of collecting and processing data, creating new economic values by efficiently utilizing data, increasing the availability of data for the population and business entities;

- introduction of modern forms of financing for IT projects and companies (venture financing, crowdfunding, IPO, asset tokenization), increasing the transparency and accessibility of government orders in the field of information technology, creating venture funds and technology parks, attracting foreign investment and stimulating the development of export-oriented products, support in the monetization of digital products and services;

- expansion of international cooperation in the field of digital development, active study and implementation of foreign experience, establishment of cooperation with large foreign companies for the implementation of joint projects.

Consider the current state of digitalization in our republic, as well as the prerequisites for its further development.

In recent years, the Republic of Uzbekistan has made significant progress in the implementation and use of information technologies in public administration and various sectors of the economy, including [1]:

- provision of public services in electronic form and through the extensive infrastructure of public service centers;

- formation of a system of interdepartmental electronic interaction;

- creation of basic state information systems and resources;

- regulation of relations in the field of personal data;

- widespread use of electronic means of payment;

- the use of information technology in the real sector of the economy;

- the beginning of the implementation of the projects "Smart City" and "Safe City".

More than 25.6 thousand of km of fiber-optic communication lines have been laid. More than 67 percent (22.5 million users) of the country's population have access to the World Information Network Internet (hereinafter referred to as the Internet), while the number of third and fourth generation mobile users has exceeded more than 16 million subscribers.

At the same time, the share of expenditures on support and development of the information and communication technologies (hereinafter - ICT) sphere of total government expenditures in 2019 amounted to only about 1.5 percent (USD 7.8 million), which is a low indicator. for effective digitalization of the republic both in the short and long term. A similar minimum indicator for developed leading countries (Great Britain, Finland, Denmark, Netherlands, Sweden, USA, France, Norway, Japan) in this direction is more than 12 percent of all government spending.

Exports of services in the field of telecommunications and information technologies in 2018 amounted to \$ 154.5 million (5.1 percent of the total export of services), and imports - \$ 47.1 million (2.1 percent of the total volume of imports). services).

The share of ICT specialists among the employed population in 2019 was 0.5 percent, which is almost 7 times less than, for example, the average for the EU countries (3.7 percent). At the same time, the demand for ICT specialists in the country is rapidly increasing, and therefore, the shortage of personnel in this area can lead to negative consequences for both the private sector and effective government. The rapidly growing demand for qualified specialists, as well as their shortage, lead to an increase in the level of salaries for specialists in the ICT field, which undoubtedly exacerbates the problem of providing qualified specialists for government bodies.

Conclusions. Thus, the analysis of the existing situation in the field of the formation and development of digital technologies and digitalization processes of the national economy, as well as the main trends in their development, allowed us to determine that the digital economy is formed on the basis of digitalization and has its own specifics, determined by the nature of creating added value by increasing and systematization of digital content (subject of labor), the growth of intellectualization of algorithms for its processing automatically (without human intervention) and depending on signals from the external environment.

We also note that one of the key characteristics of the digital economy is the rate of change in the production of goods and services, in the applied business models and management. The digitalization of the economy will also contribute to the formation of digital ecosystems, as a consequence of the ever-increasing complexity of the economy, as well as the growth of information activities to ensure the interaction of all links in the production of goods and services and the increasing consideration of individual consumer needs.

And the further formation of the electronic segment of the economy can be characterized as a transition to smart management - a qualitatively new stage when digital technologies will be considered as labor-saving, reducing trade, transport and time costs, forming a new entrepreneurial culture and an active "biological species" - digital ecosystems that allow implementing automatic personalization of the buyer and individualization of orders, optimization of production and supply chains.

REFERENCES

1. Resolution of the President of the Republic of Uzbekistan "On Approval of the Concept of the National Strategy" Digital Uzbekistan 2030 "(Id-10574 PROJECT).
2. Decree of the President of the Republic of Uzbekistan No.PD-5598 dated December 13, 2018 "On additional measures to introduce the digital economy, electronic government and information systems in the public administration of the Republic of Uzbekistan."
3. Strategy of actions in five priority directions of development of the Republic of Uzbekistan for 2017-2021.
4. What is the digital economy? Trends, competencies, measurement. Report to XX Apr international scientific conf. on the problems of economic and social development, Moscow, April 9–12. 2019 / G. I. Abdurakhmanova, K. O. Vishnevsky, L. M. Gokhberg and others; scientific. ed. L. M. Gokhberg; National Research University Higher School of Economics. - M.: Ed. House of the Higher School of Economics, 2019. - 82, [2] p. -250 copies. - ISBN 978-5-7598-1974-5 (in the region). - ISBN 978-5-7598-1898-4 (e-book)
5. Kaplan S. The Words of Risk Analysis // Risk Analysis. 1997. N17(4). P. 407–417.
6. Digital economy: concepts and directions of development. B. Panshin. Science and innovation. Scientific and analytical journal. No. 3 (193). March 2019
7. Naisbitt J., Eburdin P. What awaits us in the 90s. Megatrends. Year 2000. M., 1992.
8. Digital Transformation Initiative. In collaboration with Accenture. Unlocking \$100 Trillion for Business and Society from Digital Transformation. https://www.accenture.com/t20170116T084450__w_/usen/_acnmedia/Accenture/Conversion-Assets/WEF/PDF/Accenture-DTI-executive-summary.pdf
9. Bukht R., Hicks R. Definition, concept and measurement of the digital economy // <https://iorj.hse.ru/data/>
10. Smorodinskaya NF Complication of the organization of economic systems in conditions of nonlinear development. spkurdyumov.ru/uslozhnenieorganizacii-ekonomicheskix-sistem.
11. Ivanov V.V., Malinetskiy G.G. Digital economy: myths, reality, perspective. - M., 2017
12. Efimushkin V.A. The concept of digital economy // <https://bi.hse.ru/> Digital technologies // <https://ru.wikipedia.org/wiki>.