

Effective Development of Industrial Enterprises and Country Innovation Activity Based on Information Technologies in the Digital Economy

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ABSTRACT

In the article is discussed the importance digital economy, which is a modern requirement, and how effective it is for humanity and the state, and how to equate that to the living standards of the country with of the world's developed countries.

I. INTRODUCTION.

The population of the Republic of Uzbekistan is growing, which in turn leads to the economic activity of the population and measures to strengthen the activities of industrial enterprises, and leads to the development of not only industry, but also the overall economic activity of the republic. The digital revolution, which is manifested as a new stage of economic and technological development, has rapidly changed human life, created wide opportunities, and started a period of further tightening of the international competition.

The increase in the share of innovative activity has led to the fact that innovations are considered the wealth of the country, like minerals, production capacity and intellectual potential. There is no way to effectively use the innovative and scientific-technical potential in the interests of our country and its citizens without creating the legislative basis for the formation and

implementation of a multi-disciplinary innovation policy in our country.

The head of our state stated that "... although our country has risen by 8 points according to the international index of development of information and communication technologies in 2019, it is still far behind. It is also true that most ministries, agencies, and enterprises are far from digital technologies. Of course, we know very well that the formation of the digital economy requires the necessary infrastructure, a lot of money and labor resources. However, no matter how difficult it is, if we don't start today, when will we?! Tomorrow will be too late. Therefore, active transition to the digital economy will be one of our top priorities in the next 5 years.

Digital technologies not only increase the quality of products and services, but also reduce excess costs. At the same time, they are also an effective tool in eliminating the scourge of corruption, which worries and bothers me a lot. We all need to understand this deeply. It is possible to widely introduce digital technologies in state and community management, social sphere, increase productivity, in a word, dramatically improve people's lives.¹

II. RELEVANCE OF THE ARTICLE.

According to the results of various studies, the weight of the digital economy in the world economy ranges from 4.5 to 15.5 percent. Almost 40% of the added value created in the global information and communication technology sector and 75% of the patents related to blockchain technologies are contributed by the United States of America and the People's Republic of China². The President of our country Sh.M. Mirziyoyev at the event dedicated to the development of information technologies on February 13, 2020, the share of the digital economy in the gross domestic product in the United States is 10.9 percent, in China it is 10 percent, and in India it is 5.5 percent. In Uzbekistan, this indicator does not exceed 2 percent.

To appreciate the growing importance and influence of digitization, it is enough to look at the share of global market capitalization of several large technology companies and digital platforms in the last decade. In today's information age, the information communication system continues to develop consistently. Today, it is impossible to imagine our life without modern information technologies. At the national level, the development of this sector has become one of the important factors. That is why special attention is being paid to the development of telecommunication networks in our country. In particular, mechanization and development of the industry according to international standards have been identified as priorities. As a result of practical efforts, the efficiency of creating and using information resources in remote regions of our country is increasing³.

The choice of the state to develop the digital economy opens up new directions in the field of information technologies and in general, in the field of circulation of electronic documents. The turn to "digital technologies" was caused by the development of the worldwide Internet network and quality communication.

III. THE PURPOSE OF THE ARTICLE.

To demonstrate the importance of the role of information technologies in the development of the economy of Uzbekistan, together with various economic reforms, through reforms in the world and in our country.

IV. METHODOLOGICAL APPROACH TO RESEARCH.

Studying the legal campaigns for the development of the digital economy in our country;

¹ xalq so'zi gazetasi -40-2020-02-25

² xalq so'zi gazetasi -40-2020-02-25

³ <https://mff.uz/uz/press/news/2020/02/233/45/>

- To study the place of the digital economy in the development of the countries of the world;
- Analysis of reforms in our country in numbers;
- Presentation of conclusions and proposals.

V. THE MAIN RESULTS OF THE RESEARCH.

In modern conditions, the governments of various countries are spending a large amount of money on scientific research and innovation. These costs (% of GDP) can be seen in Table 1.

As the table shows, developed countries spend about 3% of GDP on innovation, while countries with transition economies spend much less.

Country	GDP %
Germany	2,7 %
USA	2,8 %
Japan	3,5 %
Belarus	0,74 %
Russia	1,04 %

Table 1. Investments in research and innovation by some governments (as a percentage of GDP)⁴

However, in the context of the global economic crisis, the task of increasing the efficiency of the use of funds allocated to enterprises and scientific groups is in the first place. In this regard, we come across the concept of economic efficiency. For these purposes, the European Innovation Indicators (EIK) are published annually in the countries of the European Union. Also, in 2021, technical efficiency indicators were calculated for a number of EU countries based on the method of analyzing the working environment.

The analysis of the competitiveness of the Belarusian economy and the impact of innovations on this indicator was carried out based on the method of analyzing the activity environment. In this study, the author used 43 countries, 3 input parameters (GDP intensity, number of scientists per million people, education expenditure relative to GDP%), as well as 3 variables (number of national patent applications, high technologies) exports as a % of industrial exports, ICT exports in the total export volume%).

The result shows that profit in this case is created not by material production (industrial economy), not by finance (capital), but by innovation fields and the intellect of scientists. Researchers E. Toffler, F. Fukuyama, D. Bell, J. Naisbitt and others believe that for most developed countries in the modern world, it is the innovative economy that provides global economic superiority. Currently, the United States, Germany, Japan, Australia, Canada, Sweden, Finland, Singapore, Israel and other countries are among the countries with innovative economy, which have developed venture business of innovative economy.

If we pay attention to the following thoughts of Karl Schwab, we should understand how technologies are changing our lives and how they will change the lives of the future generation, because these technologies are completely changing the economic, social, ecological and cultural conditions of our lives.

"Who will develop the digital economy?" an important question arises. The National Project Management Agency under the President of the Republic of Uzbekistan is an authorized body in the field of introduction and development of the digital economy. In addition, the Ministries of Economy, Finance, Information Technology, Justice, and other state structures have specific responsibilities and tasks for the development of the digital economy. This was also emphasized

⁴ <http://statistika.ru> 2021

in President Shavkat Mirziyoyev's Address to the Senate and Legislative Chamber of the Oliy Majlis.

It should be noted that some elements of the digital economy are already successfully operating in the life of our country. In particular, taking into account the mass transfer of documents and communications to digital means, authorization of electronic signatures and communication with the state are also being transferred to electronic platforms.

According to UN Secretary-General Antonio Guterres, "the digital economy can create new risks, including threats to cyber security, facilitation of illegal economic activities, and violations of privacy." Making new decisions requires collaborative action by governments, civil society, academic groups, the scientific community, and the technology sector."



Figure 1. Leaders of the manufacturing industry in the world⁵

In fact, it is necessary to strengthen international cooperation as much as possible in the expansion of the scale of the digital economy. At this point, it should be noted with pleasure that as a result of the effective measures being taken in the field of information security in Uzbekistan, in 2020, it rose 41 places and took 52nd place in the Global Cyber Security Index.

As can be seen from the picture, the developed countries of the world occupy the top positions. It is no exaggeration to say that the main reason for this is the result of innovative technologies. We can see in practice that the activity of enterprises has reached much higher heights on the basis of several investment projects in the territory of Uzbekistan. As an example, we can take the activity of the joint-stock company "Uzbektelecom".

In accordance with the decision of the President of the Republic of Uzbekistan No. PQ2126 of February 12, 2014, the work on the development of the network of the national mobile communication operator of the GSM standard is being continued, the expansion of the mobile communication network of the GSM standard has been implemented throughout Uzbekistan⁶.

In 2019-2020, JSC "Uzbektelecom" implemented 10 investment projects with a total equivalent

⁵ Manba: BMT statistikasi 2020

⁶ Source of "Uztelekom" AT

of 282.8 million US dollars from all sources of financing (implementation of projects is considered to be carried over from 2019 to 2020, of which 111.9 million will be spent in 2019. USD, USD 170.9 million in 2020). Including:

The sources of funding for projects implemented in 2019-2020 are as follows:

- 100 mln. About US dollars due to loans from International Financial Institutions;
- 90 mln. USD from telecommunications equipment manufacturers product credit account;
- 3.1 mln. US dollars at the expense of foreign direct investments;
- 58.8 mln. US dollars from the company's own funds;

According to funding sources:

I. The following projects were implemented at the expense of loans from international financial institutions:

1. "Modernization of switching centers based on IMS technology" project.
2. "Extension of trunk and multiservice data transmission networks based on DWDM technology" project.

The following projects were implemented at the expense of product loans of telecommunications equipment manufacturing companies and loans from foreign banks:

- "UzMobayl" mobile communication operator broadband network modernization, data storage and processing center creation and DWDM transport network expansion" project;
- "Expansion of modern telecommunication services in the territories of the Republic" project;
- Project "Expansion of data storage center";
- "UzMobayl" national communication operator network expansion project⁷.

The project "Establishing the production of optical fiber communication cables" is being implemented at the expense of foreign direct investments. The project is implemented in cooperation with JSC "Uzbektelecom" and investors from developed countries in the Asian region. A joint venture "Global Optical Communication Uzbekistan" was established to implement the project. Project implementation period: 2020-2023.

"Uzbektelecom" JSC implemented the project "Construction of optical fiber communication lines across the Republic" at the expense of its own funds.

As a result of the implementation of the above projects, the following results were achieved in 2020:

- the speed of trunk and multiservice data transmission networks is 200 Gbit/s to regional centers and 40 Gbit/s to district centers. expanded to;
- the possibility of inter-network connection has been expanded to 23886 E1 digital ports;
- the capacity of transport switching centers increased to 701,500 simultaneous connections;
- 8 RRL equipment was modernized on the prolyot;
- 431 mobile communication base stations were built;
- 3012 mobile communication base stations of 2G standard were modernized on the basis of 3G/4G technology;
- the capacity of existing data storage and processing centers has been increased by 10

⁷ Source of "Uztelekom" AT

Petabytes;

- the above experts show that the company effectively used its investments and raised its prospects to high results².

VI. CONCLUSIONS AND SUGGESTIONS.

In the current era of human development and in the near future, the qualitative development of economic sectors, the social sphere, and the state management system is directly related to the widespread introduction of digital technologies. The prospect of our country's development also depends on the development of the digital economy and the level of coverage of digital technologies. To achieve this, it is appropriate to list the following basic conditions and priorities for the development of the digital economy:

- Creating an institutional environment and digital infrastructure for the stable operation of digital technologies, the provision of public services, the wide introduction of digital technologies in the real sector of the economy, healthcare, state cadastre and other areas, as well as the territory of the Republic of Uzbekistan gradually ensuring as full coverage as possible with the possibilities of connecting to the global Internet network at the level of developed countries;
- Expanding the scope of personnel training and training qualified programmers and engineering personnel with in-depth knowledge in these areas, teaching modern information technologies that fully meet international standards at all levels of the educational system, including our foreign partners trial implementation of high-result projects in the territory of Uzbekistan;
- Strengthening the scientific-theoretical base in the field of digital economy and supporting scientific activities in this field with the purposeful use of the funds of the "Digital Trust" fund;
- Conducting seminars, courses and other events in educational institutions in order to promote and expand "digital literacy" among the broad strata of the population, to involve them in mastering information technologies;
- Strengthening the regulatory framework and improving legislation in the field of digital economy,
- To organize a labor market that meets the requirements of the digital economy and to improve the qualifications of specialists for the rapid assimilation of new technologies;
- Organization of modern scientific production laboratories for innovative developments.

International experience shows that today digital technologies are rapidly developing mainly in the scientific community and the private sector. Therefore, the state should create a favorable ecosystem by supporting innovative projects and IT companies in these areas.

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