TRENDS IN THE DEVELOPMENT OF THE DIGITAL ECONOMY IN UZBEKISTAN

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Abstract. *This article discusses the development trends of the digital economy of Uzbekistan. The authors present statistical data characterizing the level and dynamics of the development of the digital economy in Uzbekistan. International comparisons are given for a number of indicators. The material is formed on the basis of data from the Uzgoskomstat of the Republic of Uzbekistan, the UN International Telecommunication Union, the Department of Economic and Social Affairs of the UN Secretariat*

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Digital solutions serve as a locomotive for the development of the social and economic potential of the state. Uzbekistan today is one of the largest IT hubs in Central Asia. The introduction of digital technologies and platform solutions in priority sectors of the economy and the social sphere is one of the priority tasks. Digital solutions open up new opportunities for the country, create additional jobs and improve the quality of life for every citizen.

Digital transformation processes are underway all over the world. Taking into account modern realities and trends, Uzbekistan has also begun the transition to a digital economy. Thus, in 2017, a new version of the Unified Portal of Interactive Public Services (my.gov.uz) was launched, and the National Agency for Project Management under the President of the Republic of Uzbekistan was created. And in 2018, the Digital Trust Fund for Supporting the Development of the Digital Economy was established with the aim of attracting and consolidating investor funds for the implementation of projects in the field on the terms of public-private partnership, including those related to the introduction of blockchain technology.

Today, digital technologies are rapidly penetrating into all spheres of human life. “Without the digital economy, the country's economy has no future,” said the President of the Republic of Uzbekistan Shavkat Mirziyoyev on September 22, 2020 at a videoconference on the implementation of the digital economy and e-government in industries and regions

In order to further develop information technologies, a Presidential Decree “On measures for the widespread introduction of the digital economy and e-government” dated April 28, 2020 was adopted.

It is customary to include e-commerce, an e-government system, the introduction of "smart" technologies into production processes, the creation of "Smart City", "Safe City" systems, etc., as well as the widespread use of "Internet of things" technologies, as part of the digital economy.

The degree of development of the digital economy in the country, which is directly related to the level of development of information and switching technologies (ICT), is usually assessed by various indicators: the share of the digital economy in GDP, the amount of investment in the ICT industry, Internet speed, its coverage of the country's territory and accessibility for use by the population , the level of development of e-commerce, the share of public services in the e-

government system, the provision of organizations with specialists in the field of ICT, etc. In addition, indicators in international ratings that assess the degree of development of information technologies in the country are important.

The volume of Uzbekistan's GDP for January-December 2022 at current prices amounted to 888,341.7 billion soums and increased by 5.7% compared to the corresponding period of 2021.

In the near future, the task was set to double the share of digital services in the country's GDP.

The growth in the number of users of mobile communications and the Internet was facilitated not only by the development of ICT infrastructure, but also by the reduction in the cost of using the Internet while increasing its speed, the researchers note. Since 2016, the bandwidth (speed) of the international data transmission network has been increased by almost 22 times - from 25.7 to 1800 Gb / s (Fig. 1). At the same time, the cost of tariffs for Internet services for providers decreased by 21 times from 91.5 to 4.3 dollars per 1 Mbps.

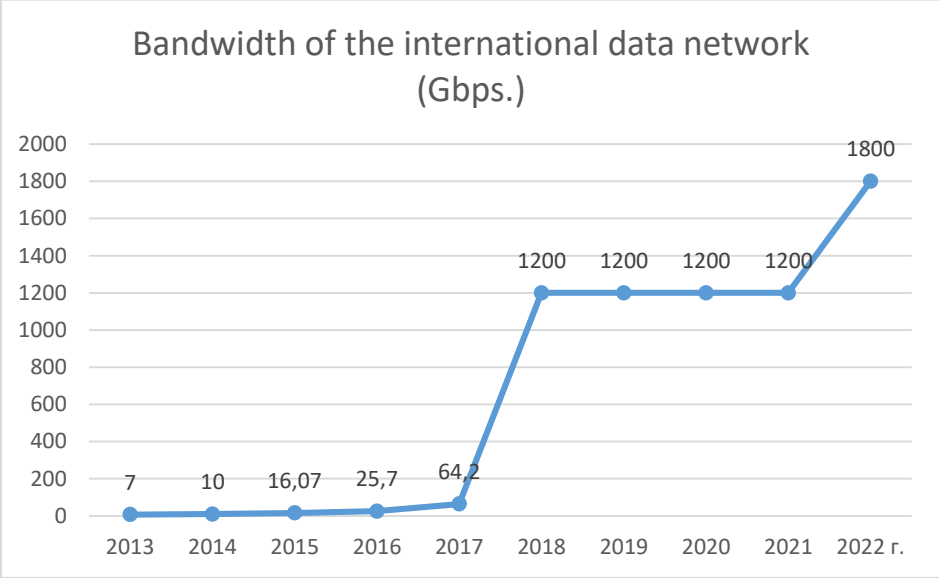

Fig.1. Bandwidth of the international data network (Gbps) in Uzbekistan

So, if in 2016 a total of 17.9 thousand km were laid in the republic. fiber-column cables, by the end of 2022 this indicator increased to 118.6 thousand kilometers (Fig. 2).

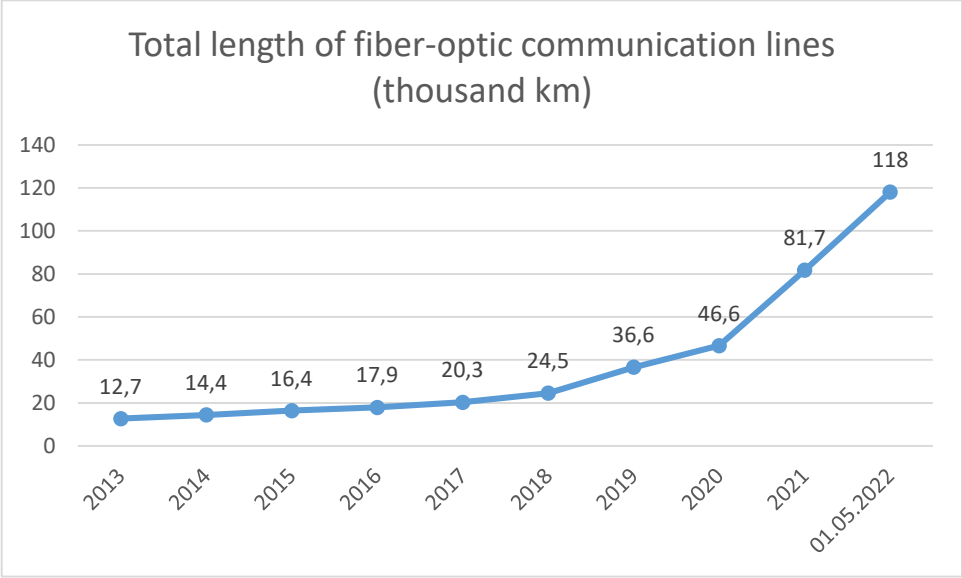

Fig.2. Total length of fiber-optic communication lines (thousand km)

The availability of high-speed Internet connection is growing through the installation of broadband access ports. In 2016, the total number of installed ports did not exceed 800 thousand, and by the end of 2020 it already amounted to 3 million units. By 2023, it is planned to bring this figure to 5.8 million units.

The development of fiber optic infrastructure, in turn, contributed to an increase in the throughput of communication channels. The total bandwidth of Internet channels in 2016 was only 64.2 Gb / s, and as of the end of 2020, it has grown to 1,200 Gb / s. According to the plans, by October this year, this figure will be increased to 1,800 Gbps, and in 2023 to 4,500 Gbps. The task was also set to increase the total capacity of backbone communication channels between regions to 800 Gbit/s by 2023.

It is worth noting the success of Uzbekistan in international ratings to assess the development of information technology in the country.

One of these is the Telecommunication Infrastructure Index (TII), which is formed on the basis of the following indicators per 100 inhabitants of the country: the number of users of the Internet and fixed telephone lines, as well as subscribers to mobile communications, wireless broadband and fixed broadband networks.

ICT Development Index (IDI), which last time drafted by the International Telecommunication Union at the end of 2017 among 176 countries of the world. The IDI index consists of 11 statistical indicators that reflect the accessibility to ICT, the degree of their use and practical skills in the use of ICT by the population. A new methodology for compiling the IDI index is currently being developed. In the latest ranking of the IDI index, Uzbekistan rose by 8 positions compared to 2016 and took 95th place (index - 4.9) among 176 countries of the world.

Every year, experts from the UN International Telecommunication Union rank countries in terms of cybersecurity called the Global Cybersecurity Index (Global Cybersecurity Index). In the corresponding report, ITU experts evaluate computer security in all countries of the world in five parameters: legal, technical, organizational readiness, readiness for cooperation, development of the country's educational and research potential. According to the report for 2020, Uzbekistan ranked 78th in the world ranking, and in 2021 it took 70th place. Over the year, the level of cybersecurity in Uzbekistan has improved by 8 positions.

The E-Government Development Index (EGDI) is compiled by the Department of Economic and Social Affairs of the UN Secretariat based on the indicators of three sub-indices: the development of online public services, telecommunications infrastructure and human capital development.The e-government development index (EGDI) of Uzbekistan from 2020 to 2022 rose by 0.06 points and is now 0.7265. This is well above both the global average of 0.61 and the Asian average of 0.65. In the telecommunications infrastructure sub-index, Uzbekistan improved the most - to 0.6575. For online services, the score was 0.7440, and for human capital - 0.7778.

Whereine-participation index (EPI) in the new report fell to 0.61. If in 2020 Uzbekistan ranked 46th in this indicator, now it is only 55th.

In the future, it is planned to increase the share of public services provided in electronic format to 60% by 2022 and to 80% by 2025, as well as to raise it to 50th place in the e-Government Development Index by 2025.

The President of the Republic of Uzbekistan Sh.M. Mirziyoyev approved the Strategy "Digital Uzbekistan-2030" dated October 5, 2020, which provides for the implementation of over

280 digital transformation projects in the regions and sectors of the country's economy in the coming years (Table 1).

Table 1.

The main targets of the Strategy "Digital Uzbekistan - 2030"

No.	Name of indicator	Unit	Current state	Goals by year		
				2022	2025	2030
1	The length of the fiber-optic communication line network in the republic	thousand km	41	70	120	250
2	The level of high-speed Internet coverage of the regions of the republic	interest	67	74	85	100
3	E-Government Development Efficiency Indicator in the International Ranking of the E-Government Development Index	points (between 0−1)	0.66	0.70	0.75	0.86
4	The share of e-government services provided through the Unified Interactive Portal of Public Services in relation to public services provided by public service centers	interest	34	60	70	90

As can be seen from Table 1, Uzbekistan predicts the intensive development of digitalization in the country in the coming years.

In the next two years, it is planned to attract about $2.5 billion for the development of digital infrastructure. It is planned to launch three large new data centers in the cities of Tashkent (expanding by 5 PB and bringing it up to 10 PB), Bukhara and Kokand (by 50 PB each), as well as further expansion of the fixed telecommunications network and modernization of the mobile network. As a result, households will have access to the Internet at a speed of at least 10 Mbps in each settlement.

Thus, the development of the IT sector and the digital economy in Uzbekistan is among the main tasks. Due attention is paid to the improvement of the sphere producing high-tech goods and services. In addition, in the conditions of fierce competition in the world markets, ICT can safely act as a locomotive for further sustainable development and diversification of the national economy, increasing its competitiveness.

Conclusion

The study shows that in the context of the digital transformation of the world economic system, industries and spheres of the national economy of the Republic of Uzbekistan are increasingly using the potential of digital technological solutions that contribute to the

achievement of competitive advantages in the global economic market. Improving management contributes to the growth of labor productivity of each employee, optimization of information exchange, robotization and intellectualization of labor, which ultimately serves to achieve high results in the economic market.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan No. UP-6079 “On approval of the Strategy “Digital Uzbekistan 2030” and measures for its effective implementation” dated October 5, 2020 // Narodnoe slovo. - Tashkent, 2020, October 6.
2. Decree of the President of the Republic of Uzbekistan No.-4642 “On measures for the widespread introduction of digital technologies in the city of Tashkent” dated March 17, 2020 // Narodnoe slovo. - Tashkent, 2020, March 18.
3. Decree of the President of the Republic of Uzbekistan No.-4699 “On measures for the widespread introduction of the digital economy and e-government” dated April 28, 2020 // Narodnoe slovo. - Tashkent, 2020, April 29.
4. Digital Economy Report 2019, Creating and Capturing Value: Implications for Developing Countries. United Nations, Geneva, 2019 - p. 17.
5. The use of “end-to-end” technologies in the field of public administration, Katrashova Yu.V., Mityashin G.Yu. Science of Krasnoyarsk, Volume 9, No. 4, 2020. - P. 88.
6. Digital technological solutions are an important factor in the development of the national economy of the Republic of Uzbekistan. Zhukovskaya I.E. DOI: 10.18413/2409-1634-2021-7-1-0-4 //Scientific result. Economic research. T. 7. No. 1. 2021. S. 31-40
7. https://lex.uz/en/search/- National database of legislation of the Republic of Uzbekistan
8. https://stat.uz- official website of the Agency of Statistics under the President of the Republic of Uzbekistan
9. Mannanova Sh.G. The main issues of development of IT-technologies in Uzbekistan. Journal of ECONOMY AND BUSINESS theory and practice. https://cyberleninka.ru/article/n/osnovnye-voprosy-razvitiya-it-tehnologiy-v-uzbekistane/viewer
10. https://nonews.co/directory/lists/countries/cybersecurity-index
11. https://publicadministration.un.org/