

DIFFERENT THEORIES AND PERSPECTIVES ON THE DEVELOPMENT OF THE DIGITAL ECONOMY

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Abstract. *The article describes various theories and views on the development of the digital economy, its economic nature and development issues. Also, digital technologies not only increase the quality of products and services, but also reduce excess costs. At the same time, it plays a major role in eliminating the worst evil that hinders the country's development - corruption. Industry economics are also important in setting telecommunications regulations*

Keywords: *digital economy, information technology, information and digitization process, telecommunication networks.*

Enter

Currently, the theoretical basis of regulation of the digital economy in the world is rapidly developing. The theoretical foundations of digital economy regulation and the development of the digital economy allow to fully satisfy consumer demand and increase labor productivity in economic sectors and sectors. E-commerce makes it possible to prevent crises by accelerating the sale of goods and services.

Internet advertising, in turn, makes it possible to expand the advertising audience worldwide. In order to further develop science in our country, to educate young people as possessors of deep knowledge, high spirituality and culture, to rapidly continue the work started on the formation of a competitive economy and to raise it to a new, modern level, 2020 is the "Year of Science, Enlightenment and Digital Economy Development" [1], was named. The task of developing the "Digital Uzbekistan - 2030" program was set, and according to it, the goal of accelerating the process of digital transformation of Uzbekistan was determined. With the development of information technologies, new directions of employment are emerging today. Employers are able to hire employees voluntarily and at will, and geographical location and time difference are irrelevant. Employees are able to perform their tasks remotely using information technologies, and are able to perform the assigned task at any time without leaving the house.

Analysis of literature on the topic

When talking about the process of "digitization" of the economy and society (in English, digitization means digitalization, sometimes digitalization means digitalization), first of all, it is necessary to clarify the terminology. In the broadest sense, the process of "digitization" usually refers to socio-economic change initiated by the widespread use and assimilation of digital technologies.

A number of definitions have been given to the theoretical concept of digital economy regulation. In particular, V. Ivanov, Doctor of Economics, Corresponding Member of the Russian Academy of Sciences, defined "Digital economy as a virtual environment that complements our reality". According to Tomsk State University professor D. Kungurov, there are two approaches to the term "digital economy" [5].

Digital economy based on digital technologies and describing the exclusive domain of electronic goods and services: the first approach is called "classical", classic examples are telemedicine, distance education, sale of medicines (films, television, books, etc.). The second

approach: "digital economy" is economic production using advanced digital technologies. M.L. Kalujskyi defined the digital economy as the economic Internet activity as well as its forms, methods, means, and communication environment for its implementation [6].

According to the sources, "Digital economy" is a model of this type of economy that works to a certain extent. The digital economy is a production complex, a production system that creates products and services that provide life and comfort for a person, where a certain cyber-physical (cyber-physical) system appears. In our opinion, the digital economy is a virtual environment in which the production complex creates products and services that provide convenience for people, and it is an economic production system using digital technologies [3].

Interest in the digital economy has grown significantly due to significant changes in society and the economy. Modern technologies and platforms have helped businesses and individuals reduce costs by minimizing personal interactions with customers, partners, and government organizations, as well as making communication faster and easier. The result is a digital or electronic economy based on network resources.

The word "digitalization" is actually a new term, which implies the involvement of IT solutions in the process of innovative management and administration, and as a result, the use of information technologies in all systems, from Internet of Things to e-government.

Research methodology

The concept and essence of the theoretical foundations of regulation of the digital economy. Digital economy is a system of implementation of economic, social and cultural relations based on the use of digital technologies. It is sometimes referred to as the internet economy, the new economy, or the web economy[6].

In this case, the virtual payment system accelerates the circulation of goods. In 1995, American programmer Nicholas Negroponte coined the term "digital economy." Today, the term is used by politicians, economists, journalists, and entrepreneurs around the world. In 2016, the World Bank published the first report on the state of the digital economy in the world ("Digital Dividends").

According to an analysis conducted by leading international organizations, the digital economy will increase GDP by at least 30 percent, while eliminating the shadow economy. Turning to international practice, today's digital economy is not limited to e-commerce and services, but covers all aspects of life, in particular, health, science and education, construction, energy, agriculture and water management, transport, geology, cadastre, archives, is rapidly penetrating internet banking and other fields, and in each of them is giving its high results.

The provision of e-services and e-products by the state to its citizens is a key part of the digital economy. Extensive development of this sector in our country will eliminate the scourge of corruption.

Development and implementation of the Digital Uzbekistan 2030 program in Uzbekistan, first of all, the formation of thorough and perfect organizational and legal mechanisms, as well as ensuring the close cooperation of government agencies and businesses in the introduction of innovative ideas, technologies and developments. Coverage of production and services in the networks with digital technologies, the development of intellectually talented personnel with in-depth knowledge in this area, thereby contributing to the creation of an "information society" environment in the country.

At present, the country's development does not depend only on the available natural resources or population, according to the World Bank, 66% of the total wealth of our land - \$ 365 trillion - falls on human capital, ie the level of knowledge of the individual. In the United States, that figure is 77 percent of the nation's wealth - \$ 95 trillion. Therefore, in this year's Address, the head of our state emphasized the idea that " the greatest wealth is intelligence and knowledge, the greatest heritage is a good upbringing, the greatest poverty is ignorance."

Intelligence and science are the wings of progress. The pinnacle of modern science is in the high-tech, digital world. The Fourth Industrial Revolution marked the beginning of a new form of development - the "digital economy". To date, the world's digital economy is estimated to be worth \$ 2 trillion in 20 developed countries. In the UK, the world leader in the development of the digital economy, it has already reached 12 per cent of the country's gross domestic product. The digital economy implies the digitization of technological and business processes, production, logistics and sales of finished products. In our country, in 2020, it is planned to fully digitize such areas as transport, geology, education, archives, and work in this direction is in full swing. IT-parks with modern infrastructure are also a proof of our opinion.

The launch of a new version of the Single Interactive Public Services Portal, the Prime Minister's Virtual Reception for Entrepreneurs' Applications portal "business.gov.uz" is an important step in the development of the digital economy.

Time and labor resources for consideration of draft regulations by all interested ministries, departments, local executive bodies, for agreement (visa issuance) using electronic digital signatures, including simultaneous discussion of the general public and experts, and prompt dispatch It is also gratifying that the single electronic system "project.gov.uz" has been introduced in order to save significantly.

According to analysts at ERGO Research & Advisory, the main problem in the development of the digital economy is poor telecommunications infrastructure and communication . As a result of low investment in the ICT sector, the density of base communication stations was low. This causes the internet, mobile services to not work well, resulting in reduced digital economic growth, leading to digital outages. Happily, this year the figure has increased significantly.

Analysis and results

According to the information service of the Ministry of Information Technologies and Communications of the Republic of Uzbekistan, a number of measures are being taken to develop the telecommunications infrastructure[6]. The total bandwidth of the Internet connection is 1,200 Gbit/s, access to the Internet at 750 Gbit/s through the switching center, and the network load rate is 76.6%. From January 1, 2020, the tariff for Internet services for operators and providers was reduced by 34% compared to the same period last year and amounted to 56.0 thousand soums per 1 Mbit/s. The number of Internet users exceeded 22 million, of which the number of mobile Internet users reached 19 million. The main telecommunication networks have been expanded at 237 facilities across the country, telecommunication equipment has been modernized, the capacity of the main telecommunication networks has been increased to 200 Gbit/s at the interregional level and 40 Gbit/s at the inter-district level. There are positive results, but that doesn't mean enough.

After all, the digital economy continues to accumulate an incredibly large amount of digital data. In 2022, global IP traffic volume is expected to reach 150,700 Gbit/s (compared to 45,000 Gbit/s in 2017), which calls for not lagging behind the period.

Insufficient digital skills in all segments of the population has been another obstacle to the development of the digital economy. Digital turnover was also considered low. In this regard, it is worth recalling the opinion of Bill Gates, the founder of Microsoft, who is well known in the world of technology : "Soon there will be only two types of companies on Earth. The first is companies that do business online, and the second is companies that go out of business . " With this in mind, it is expedient for entrepreneurs to organize their activities on the basis of the principles of world-famous business for the consumer, business for the business, consumer for the consumer.

Despite the availability of payment systems that allow Click, Payme, M-bank, Upay, Easy and other online payments, the rate of making online payments for mobile payments, internet, utilities is not high. In 2017, 34 percent of account holders made a digital payment. For comparison, the figure is 96 per cent in the UK. It is noteworthy that the number of payments through the terminal is growing. For example, in 2018, payments through the terminal amounted to 53 trillion soums.

Another problem in the introduction of the digital economy was the fact that for a long time, information technology specialists, who were technical staff in budget organizations, were not paid high salaries. The reason is that qualified programmers did not stay in this position for long. They preferred to work for international organizations, joint ventures, foreign clients. Now they have a mechanism of overpayment.

Along with the achievements, there are problems, there is a lot of work to be done, as President Sh.Mirziyoyev said, "Of course, we know very well that the formation of a digital economy requires the necessary infrastructure, a lot of money and manpower. But no matter how hard it is, if we don't start this work today, when will we start? It will be too late tomorrow. Therefore, the active transition to a digital economy will be one of our top priorities for the next five years. "

All systems in Uzbekistan are being digitized. In particular, the demand for online goods and services in the quarantine regime introduced due to the coronavirus has further increased, the range of digital features has expanded in all areas. Today it is possible to make payments without leaving home, receive distance education without any problems, use and even work in the world's largest libraries. Digital services have a number of advantages over the traditional type, such as paperwork, lack of formality, saving time. For example, if you receive public services in digital form, you will be offered a discount of 10 percent of the established fee[6].

All this is a sign of the active transition of our country to the digital economy. Another factor in the development of the digital economy is to ensure cybersecurity. Under quarantine conditions, there have been cases of the spread of viruses on the global network under the label of Coronavirus Protection Guidelines, which disable software systems. Financial fraudsters who deceive ordinary people by promising to sell and deliver drugs overseas and asking to transfer money to an account in advance have used fake online stores, websites, social media accounts and email addresses. This also reaffirms the need to ensure information security.

The concepts of digitalization and cybersecurity always come side by side. Because along with the digitization of all systems and processes, it is important to ensure their technically perfect

and flawless operation, security. The more attention is paid to the development of the digital economy in our country, the more urgent is the provision of cyber security. Uzbekistan is strengthening its position in the global cybersecurity index. In 2017, our country took 93rd place in this ranking, and in 2018 it rose to 52nd place.

Cybersecurity is a different concept from the high spirituality that serves to sort information by being a form of information security. It refers to more technical processes and means for the average user to set secure and strong passwords in mail, social networks, payment systems, protect their personal computer and smartphone from viruses. In a broader sense, cybersecurity is a set of measures aimed at protecting networks, mobile applications and devices. This means maintaining the confidentiality of data, protecting their integrity, the full operation of this or that site, application, program.

According to the analysis of the State Unitary Enterprise "Cyber Security Center", in 2019, 268 cybersecurity incidents were detected on the websites of the national segment of the Internet. This means that the number of offenses in the digital world has decreased by 44% compared to the previous year. Of these, 222 accounted for unauthorized uploading of content, 45 accounted for defeats (a hacking attack that meant a website page was replaced by another, for example, an ad page) and one for covert mining (covert activity on a cryptocurrency platform).

69% of the incidents were detected on the websites of hosting providers in Uzbekistan, and the remaining 31% were related to the sites of hosting providers in foreign countries. Investigations were conducted in 80 cases and practical recommendations were made to address the identified vulnerabilities, while the remaining 188 cases were resolved independently by the website owners. Security problems in cyberspace are caused by managing content that contains security errors in the code, working with outdated versions, ease of access passwords, templates downloaded from unsafe sources, managing websites on computers infected with viruses.

Monitoring of the national segment of the Internet has identified more than 130,000 cybersecurity threats. Of these, 106,508 cases belong to hosts who have become participants in botnet networks. 13,882 cases are related to blocking of blacklisted IP addresses by various services due to spam email or password violation. 8,457 cases are related to the use of the TFTP (Trivial File Transfer Protocol) protocol and appropriate ports, which can lead to the download of third-party content due to the lack of authentication mechanisms. 2 114 cases are related to the use of the weak protocol RDP (Remote Desktop Protocol). 1042 cases are related to the lack of authentication mechanism in software and database management systems, as well as expired or invalid signature SSL-certificates.

These analyzes once again confirm the urgency of the issue of cybersecurity, as software vulnerabilities can cause an intruder to access an information system or website, as well as remote access to files and data, leaking personal data of citizens. Cybersecurity measures prevent such cases.

The Action Strategy on the five priority areas of development of the Republic of Uzbekistan in 2017-2021 in the "Year of Science, Enlightenment and Digital Economy", the National Cyber Security Strategy for 2020-2023 and the draft law "On Cyber Security" were developed.

The legal strengthening of cybersecurity standards is a necessary and appropriate measure. The digital world has not yet been able to clearly define its status legally. In this regard, new types and forms of threats are emerging, which need to be reflected in the legislation. The development

of a national cybersecurity strategy will regulate activities in the field of combating crime in the national cyberspace. After all, the harm and risk of crime in the virtual world is no less than in the real world.

Also, according to the National Cyber Security Strategy for 2020-2023, a unified system of cyber security and a legal framework in the field of protection of critical infrastructure from cyber-attacks have been formed.

The Law on Cyber Security is expected to protect the information and communication technology system from modern cyber threats, introduce modern cyber security mechanisms for different levels of systems, define the rights and obligations of government agencies, enterprises and organizations in this area, and coordinate their activities. Indeed, there was a need to unify the normative and legal documents in this area.

At the heart of all the reforms being carried out in our country is the goal of creating conveniences for our people. Particular emphasis on cybersecurity has led to the reliable and secure use of digital capabilities.

In our country, special attention is paid to the training of personnel who have mastered modern programming technologies. In particular, the project "One Million Programmers" is being implemented for this purpose.

The importance of this project is explained by the fact that digitalization is a criterion of economic development, integration into the world community, the main condition for the integrated development of all areas. In today's world, there is a high demand for programmers who can implement digitalization, mobility, artificial intelligence. This is because the infrastructure that provides the digital economy, and the large amount of investment in ICT, does not justify itself without programmers who can effectively use electronic capabilities.

Trainings on the project aimed at launching the digital economy and training one million programmers to ensure its effective operation are currently being conducted through the educational portal uzbekcoders.uz. Video lessons are provided with Uzbek subtitles. Anyone can register and take online classes. Classes are free of charge remotely.

In the first phase of the project, an advertising campaign was conducted to introduce the project to the population and promote lessons that will help them acquire digital skills. At the initial stage of the "One Million Programmers" project, more than 62,000 students were covered, and 5,400 of them were awarded certificates. The project is included in the free services of the educational portal ZIYONET, mobile operator UZMOBILE and Internet providers UZONLINE. In the framework of this project, training in programming skills is being introduced in digital technology training centers.

The digital economy [6] is not any other economy that has to be created from scratch. This means moving existing economies to a new system by creating new technologies, platforms and business models and introducing them into daily life.

Symptoms:

- high level of automation;
- electronic document exchange;
- electronic integration of accounting and management systems;
- electronic databases;
- availability of CRM (customer interaction system);
- corporate networks.

Conveniences:

1. Costs for payments are reduced (e.g. travel to the bank and other resources are saved).
2. More and more information about goods and services will be obtained.
3. The opportunities for goods and services in the digital world to enter the world market are great.
4. Goods and services will be rapidly improved due to the rapid acquisition of feedback (consumer opinion).
5. Faster, better quality, more convenient.

Conclusions and suggestions

Taking into account the above, the theoretical foundations of regulation of the digital economy [6], its economic nature and development issues are highlighted. In the development of the digital economy, it is necessary to pay special attention to the application and use of digital technologies, their availability and quality, preparatory stages and increasing the various levels of development.

The emergence and spread of information and communication technologies (ICT) has had such an impact on the global economy that a new phenomenon has emerged - the digital economy. Under the influence of information and communication technologies, the way of life of people began to change, the relations between users changed - it became possible to establish communication between people in different geographical regions, spheres of activity, etc. This is the rapid growth of information communication, which is the basis of the digital economy. The impact of digital technologies is felt both globally and locally. The digital economy is a rapidly growing part of the global economy as a combination of new productions. New technologies have a transformative effect on some aspects of the activities of well-established business entities, which mainly consists of replacing functional mechanisms - communication tools or industrial machines with digital or digital mechanisms, as well as their further modernization.

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