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## Development of the digital economy in Uzbekistan as a key factor of economic growth and increase of living standards of the population

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### Abstract

Achieving sustainability in the service business today is more difficult than ever. It is not an easy task to gain a strong competitive advantage, to reach the top and maintain this status.

**Keywords:** Economics and management, information and communication technologies, information economy, innovation, educational process, digitalization.

### Introduction

The service business is in a sense becoming the "default" digital business. On the one hand, no company in the photo business wants to replicate the fate of Kodak, which once inadvertently missed the time to jump from film to "number". On the other hand, Amazon, Uber, Airbnb, and others are showing how to take advantage of the digital revolution and invent and implement completely new business schemes. Gone are the days when the internet was first seen as an online showcase and later as an online store as an addition to the offline business.

The emergence of a new generation of young people - "living" on the Internet has led to the online ("digital") business. Mankind has entered an era of global change. In recent times, the main spheres of human life - economics and management, science and security, have taken on a new form and meaning. Humanity has become unique, which is changing social relations. The fact that digital technology continues to enter our lives is one of the hallmarks of the world of the future. This is explained by advances in microelectronics, information technology and telecommunications. Thus, digitization is an objective, inevitable process that cannot be stopped. One of the most serious risks to digitalization is mass unemployment among middle- and low-skilled workers.

The middle class could be drastically reduced, as these jobs will be automated in the first place and replaced by intellectual robots. A significant portion of the active, educated, and able-bodied population, accustomed to a sufficiently high standard of living, is left on the side of the road because of the Western way of life. However, the digital world is evolving so fast that speeding up the training of highly qualified personnel can prevent their shortage. So for those who are ready for change, there is still plenty of time.

On July 3, 2018, the President of the Republic of Uzbekistan Shavkat Mirziyoyev signed Resolution No. PD-3832 "On measures to develop the digital economy in the Republic of Uzbekistan." The resolution sets out the most important tasks for the development of the digital economy. In the long run, the "digital" (electronic) economy could become a tool capable of realizing the centuries-old dream of freedom of people doomed to hard physical labor. Many people have a wide range of opportunities for creativity, science (both fundamental and practical).

The digital revolution is coming to some industries and countries earlier and stronger, and to others later and less. Services, media and entertainment will be the first, followed by telecommunications companies and banks.

Today we can identify any essence by belonging to this or that universe, but after some time we will not be able to make such a distribution for most objects. Examples like this still exist today: an IP camera or any other transmitter connected to a network - which world is it part of? Undoubtedly, they are the essence of the phenomena of both worlds. Mobile phones today store a lot of information: phone numbers, birthdays, photos, passwords and more. Even if we are not physically connected to the phone, we feel functionally integrated with it. It does not take much courage to say that the process of unification of real and virtual worlds has begun and cannot be stopped.

### **Analysis of the relevant literature**

The combination of real and virtual worlds creates a new hybrid world with different rules and regulations that are different from the ones we are used to today. In this sense, there is no such thing as a "digital" economy that is separate from the rest of the economy: a "digital" (electronic) economy is one that exists in a hybrid world. The hybrid world is the result of a combination of real and virtual worlds, characterized by the ability to perform all the "vital" actions in the real world through the virtual world. Low cost of information and communication technologies (ICT), high efficiency and openness of digital infrastructure are necessary conditions for this process.

An in-depth study of the pace of development of society and the economy and as a person and the intellectual potential accumulated by him has become a vital necessity.

V. Petty has shown that the composition of wealth and its sources brings about one or another type of income, depending on the labor, skills, and health of the people, as well as the rent, capital, and interest (interest) it brings. According to the scientist, the amount of human capital is estimated by the capitalization of the salary of the employee throughout his life.

Another century later, Adam Smith and other representatives of classical economic theory also recognized the concept of human capital. In his 1776 study of the nature and causes of the wealth of nations, Adam Smith showed that the wealth of nations is largely determined by the number of workers and the quality of their skills.

One hundred years later, Alfred Marshall also analyzed the effects of long-term investments in human capital and the role of man in the process.

Indeed, statistics on the economic growth of the developed countries of the world have shown that they are much higher than the figures in the calculations based on the classical factors of growth. An analysis of the processes of economic development and growth shows that human capital has become a key production and social factor that develops the modern economy and society.

It is well known that the encyclopedic interpretation of capital - capital (from the French, English "capital" and Latin "capitalis" - "chief, main") is "resources that are able to generate income or created by people to produce goods and services."

The term "capital" is usually used to refer to the products of labor that are intended to be used in future production. The process of creating capital is called investing. Investing means making costs first, then covering those costs.

Initially, human capital was understood as a set of investments in people's ability to work - education and professional skills. Later, the concept of human capital

expanded significantly. Recent estimates by World Bank experts include consumption expenditures on human capital - family food, clothing, housing, education, health, culture, etc., as well as government spending for these purposes.

Digital business is the emergence of new business models that combine the physical and digital worlds. School of Management describes digital change as "the use of modern technology to radically increase the value and productivity of enterprises." Social networks, the smartphone market, broadband Internet access, machine learning technologies, the "explosive" growth of artificial intelligence will change the world in which companies operate. They or occupy vacancies in the new market or they will have to adapt to the changes by changing the available vacancies. It turns out that the digital transformation of organizations is a response to the development of new information technologies and their active spread around the world.

As digital variables reach different levels, the difference between them becomes synonymous with the difference between the two terms - "digitalization" and "digitization". Digitization is the transfer of information from physical to digital media. Examples of digital conversions include e-books, video courses, digital photocopying, and more. There is no change in the structure of information: it is only in electronic form. Digitization is often used to improve an existing business model and optimize business processes.

So, digitization is the creation of completely new products in digital form. For example, a dynamic animated course or an interactive document interpretation system is digitization. It is not possible to transfer a digital product to technical means without seriously compromising its quality, so digitization, unlike digitalization, allows businesses to grow significantly and gain new competitive advantages.

### **Research methodology**

In practice, there are two directions of digital transformation. The first is automation and robotics to minimize human involvement in existing business processes. The second direction is to scale the management system obtained in order to create an exponential organization. By exponential organization, we mean that because of their scale, they are at least ten times more productive than other organizations working in the same field. It is no secret that regional and international expansion of companies often stops with the difficulty of replicating the management system globally. Rapid growth limitation problems are often caused by duplication problems. An example of this is the process of changing the educational process, which allows you to create a national or international business from a business school limited by the size of the region, the size of the audience and the number of teachers. Digitization of the educational process allows to minimize costs and make the training courses open to an unlimited audience that understands the language spoken by the teacher (MOOC).

One of the main conditions for the creation of an exponential organization is the ability to unify services, if the service is unified, the management system for the provision of these services can be unified and fully automated in the future. Virus marketing and "sarafan" radio in the target market It can be argued that the minimum cost at the expense of the digital interface for ordering dumping services at this price will ensure the "explosive" growth of the business. Digital business process transformation

could be done using BPMS (Business Process Management Suite) class systems. The second stage of digital transformation is the automation of individual operations. For example, the assessment of the reliability of the client is carried out automatically, as in the case of a test among the participants of the course. To automate operations, "digital robots" are often used to make independent decisions based on mathematical algorithms or even artificial intelligence. It can be said that the development of the digital economy is considered in three main segments:

- Sector of suppliers and buyers of real goods and services;
- software and technology developer sector;
- Legislative base, training system, infrastructure in the form of all types of data transmission and storage channels.
- And it covers the following areas:
  - Big data;
  - artificial intelligence;
  - blockchain;
  - quantum technologies;
  - production technologies;
  - industrial internet;
  - robotics;
  - wireless communication;
  - Virtual reality.

As we interact with the virtual world, we can understand the transition from the digital economy to digital modeling and the Internet of Things. Of course, financial relations in the national economy cannot be carried out without a digital currency in the form of a national cryptocurrency.

Many information systems perform operations better, faster, and cheaper than humans, which allows for unprecedented speed of action by minimizing the number of errors. There are now examples of robotic assistants, robotic journalists, and even robotic leaders who distribute tasks more efficiently than humans to help students. A set of information services that interact with each other during a process is the result of the digital transformation of service business processes. Many banks now carry out borrowing processes without human intervention.

### **Analysis and results**

In the new form of companies, taxi calls are carried out using all the information systems between the customer and the driver, and human participation is not even considered. However, it is not always possible to completely exclude human participation from business processes. At the same time, digital conversion allows you to quickly collect data and provide remote control over digital communication channels using robotic technology. Examples of such changes are in the services sector, oil production, electricity and manufacturing. Undoubtedly, the term "digital transformation" is becoming more and more popular in modern business. Apparently, new technologies that are actively evolving around the world will soon change our perceptions of digital technology and artificial intelligence.

Another key technology on which the digital economy relies is the Internet of Things. That is, many appliances are connected to the mains, but these are secondary. More and more objects in the material world are connected to the Internet, which provides information collection and even remote control of these objects. In practice, a virtual copy of a material object, consisting of various indicators of the

external world and the object, appears on the Internet, allowing the object to be controlled via the Internet. An example of an Internet of Things is a virtual data transmission system that sends a list of parts that need to be replaced as part of an unscheduled breakdown, such as a fault detected in a technical support service. The next stage in the development of the Internet of Things industry is the ability of products to interact not only with humans, but also with each other, which allows automated interactions on conveyor lines, maintenance systems, logistics and many other business areas. But there are still issues to be addressed, such as electronics that consume minimal electricity, as well as the creation of new communication standards for the interaction of objects.

Another innovation in digitalization is Augmented Reality (AR). Augmented reality technology is one of the most promising technologies that allows you to add virtual world objects to the real world. Imagine that as you walk down the street, you see more information about the people and objects around you. There are examples of augmented reality that are actively used in real life. For example, in some parks in Moscow, you can see signs that the object of the material world is connected to the object of the virtual world. Games with augmented reality elements are actively spreading, shops have virtual mirrors and locker rooms, and augmented reality is being tested in cars. Virtual reality technologies are not so active in business, where the demand for 3D modeling technologies is higher.

Examples of creating digital 3D models of the real world are service enterprises, construction companies, manufacturers of complex technological products, oil production and other industries. The scope of 3D modeling includes not only the creation of object models, but also their filling with data, which, in turn, optimizes the process of management decision-making and, consequently, the means of designing products with the means of their production. allows you to connect. At the same time, the mass introduction of virtual reality technologies will require a new generation of devices that will allow more real human participation in virtual reality, to further enhance the reality of the virtual world. Of course, the digital economy is also closely linked to robotics.

The role of robots in human life has been discussed many times by science fiction, but now robots are entering our real lives quickly and directly. The fact that robots perform the simple functions that humans perform in production can significantly reduce the number of errors and increase the speed of execution of tasks. It is no secret that many industrial companies actively use robotics in assembly lines and logistics, which reduces the importance of the human factor and attracts a minimal number of people. Reducing the cost of industrial robots allows them to achieve economic efficiency from their use, and in practice, people only have to watch how the mechanisms automatically produce products without human intervention.

In Germany, even the term 4.0. Industry has emerged, which refers to the creation of fully automated production and logistics networks that interact within the process of automation production. The combination of robotics, the Internet of Things, artificial intelligence, and 3D printing now makes it possible to build fully mechanized factories to produce everything from sneakers to cars. 3D printing is a technology that can radically change some industries and machinery. The creation of a large number of 3D printers

that can print products from polymers, concrete, metal, and even gold changes the understanding of the production cycle itself, as many product types can only be printed in three dimensions without leaving home. model and 3D printer. Mechanical engineering is also actively involved in the development of 3D printing, where it is cheaper to print than to get the details in the "classic" way.

Clothing and footwear designers are also launching new products. Builders, jewelers, and medical professionals are also actively using 3D printing in their business processes. There is also a self-printing printer. Chinese companies have begun to develop designers who can assemble a 3D printer for anyone at home. Although there are still questions about printing complex products in the way of technology, it is very likely that there will be an opportunity to print complex component products that can be used to print new sneakers, taking into account the characteristics of the sole. The point is, such work can be done without leaving home.

Now, let's talk about technology synergies. The use of innovative digital technologies in combination with other tools can not only change this or that business process, but also completely reorganize the network by producing products that did not exist before. The most interesting thing about digital transformation is the changes that are taking place and the fact that all of these technologies can be used together. In terms of the theory of synergetics, we can say that the social system is constantly changing, and random changes in institutional forms (fluctuations) are an indicator of disorder at the micro level of the system, as well as the possibility of its development. Some fluctuations are so strong that they determine the trajectory of future development and cause qualitative changes.

### Conclusions and suggestions

It should also be noted that first of all, a situation arises, and only then laws are created to regulate it. The same thing has happened with the radio industry, with the Internet, with automotive technology, and so on. Now a similar phenomenon is observed with cryptocurrencies. In general, cryptocurrencies have emerged at the intersection of economics, cryptography, computer technology, and politics.

The first cryptocurrency, bitcoin, is a bottom-up innovation, and the above (government agencies) have nothing to do with it. In other words, cryptocurrencies are a solution created by the people, not the state, taking into account the wishes of the people. Therefore, it is interesting to study the history of the creation of this innovative idea and its development.

Based on this idea, a decentralized method of money circulation was proposed and put into practice. In this cash flow model, commissions are minimal or non-existent. No third party can interfere with them, offer their paid services, suspend the contract or confiscate someone's property without the consent of the two parties. In this system, the amount of money issued is pre-programmed, which prevents political manipulation and fraud associated with the issuance of money. The system is a transnational system with no subtleties and no one can manage it without the consent of the users.

The system does not require any level of confidence - its correct operation is fully guaranteed by precise mathematical formulas and cryptographic methods. This

eliminates the human factor, leaving aside the legal arrangements that can be governed by man.

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