



Analysis Of New Technologies Of Business In The Digital Economy And Their Effectiveness In Uzbekistan

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ABSTRACT

Today, with the rapid introduction of modern information and communication technologies (ICTs) into the human lifestyle and easy and convenient access to complete product information, including consumer requirements, the ability to place orders from anywhere in the world, the ability to change the shape of a product according to personal desire, rapid acquisition, etc. as a result of changing social relations, has led to the creation of new management technologies and platforms for developing enterprises and societies in a competitive environment.

KEYWORDS

Transactional sector, digital economy, enterprises, personal desire, rapid acquisition.

INTRODUCTION

New technologies and platforms have led to a large-scale reduction in transaction costs in the management of enterprises, consumers and all related activities, as well as created closer links between the state and commercial structures.

The result is a networked digital economy. One of the main reasons for the expansion of the digital segment is the development of the transactional sector, which today accounts for 70% of GDP in developed countries. New

technologies that are now widely studied and implemented by government agencies and enterprises include Internet of Things technology, cloud computing technology, big data, blockchain and e-government systems.

MATERIALS AND METHODS

Before describing business models in the digital economy, we will briefly describe the BMDI (Business Model Development & Implementation), which is their basic methodology. BMDI is a strong but technologically independent innovative business model based on a creative approach (Brown 2008). The founder of this model is SAP, which aims to adapt to future business requirements and accelerate the transformation of business processes (Doll and Eisert 2014). Many successful companies in the digital business use BMDI as the basis of their business models. However, the disadvantage of this model is that it is not integrated into the digital transformation. However, this model serves as a fundamental basis for other new business models. According to a 2010 study of cloud computing by Faith Shimba, according to this economic model, organizations no longer need to fully buy ICTs and provide technical support, but rather pay for the use of all ICT resources using cloud technologies. I can only do it. According to Plummer et al., Cloud computing technology is a large-scale and flexible style of computing that allows many external customers to use Internet technology as a service.

When Sun et al. (2012) compared business carried out through the Internet of Things technology ecosystem with the traditional way of doing business, it can be seen that the traditional method has already lost its relevance. In other words, IoT technology allows products to adapt more quickly to market conditions. Today, big data is developing as one of the most important functional elements of the economy. In the reports and scientific articles of many foreign researchers (Brynjolfsson, Hitt, & Heekyung,

2011; Bulger, Taylor, & Schroeder, 2014; George, Haas, & Pentland, 2014; Manyika et al., 2011; Schroeck, Shockley, Smart, Romero-Morales, & Tufano, 2012; Taylor & Schroeder, 2014; Taylor, Schroeder, & Meyer, 2014; Thomas & McSharry, 2015) indicate that big data is evolving across all sectors of the economy. The use of information has been growing in recent years, and companies need to use big data to visualize the overall state of the information they receive in their information policy and information regulation. The World Economic Forum defines blockchain as "Blockchain never before has had so many people looked so much into a technology that so few understands, and one of the most important keys to a technology statement is trust." Head of the Department of Strategic and Financial Management of the Republican Higher School of Business and Management E. Khoshimov said that innovative technologies to improve the efficiency of enterprise management in the transition to the fourth industrial revolution include Internet technologies, cloud computing, data analysis and advanced analysis tools. The studied literature shows that modern business platforms are of great interest today, while states are developing strategies for using these systems in their development concepts.

RESEARCH METHODOLOGY

In this study, categorization, that is, the main reason for using the SWOT method, makes it easier to identify the advantages and disadvantages of doing business based on new technologies, as well as recommendations based on observation, data collection, study of regulatory documents and conclusions.

ANALYSIS AND DISCUSSION OF THE RESULTS

In the digital economy, cloud computing enterprises provide services to businesses in need of ICT in three areas. These include offering infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS). Interestingly, they can easily

offer their services to all users, both national and foreign (Cloud Security Alliance 2009). This means that the above 3 types of services will be available to customers in the following areas: Public cloud - this model of cloud service is open to everyone. In this case, the level of security of users when using the service is borne by the party providing the service, since the user pays for it. A good example of this is Amazon Web Services EC2.

- Private cloud is used by the private sector to minimize the need for ICT. Because not all small businesses have the ability to store, manage and maintain ICT resources.
- Hybrid cloud. This model, as the name suggests, serves both the public and private sectors. The key point is the integration of cloud technologies used by both representatives.
- Community cloud provides services through the distribution of shared ICT infrastructure to various organizations that have a common interest in this model (CSA 2009).

The business model based on the Internet of Things includes the following components:

- Physical Freedom-this component represents the assets of individuals sold with digital services with no added value. Most customers choose this mode after service.
- Digital Value Added or value added-the assets of individuals are sold at a very low price. Over time, the customer can activate or purchase any digital service with a large mark-up.
- Digital lock is a sensitive digital lock that is performed manually and represents a guarantee and security.
- Point of sale of the product-buyers can use the product as a point of sale, for example, smartphones and identification technologies.
- Self-service object means that the product is self-service via the Internet.
- Remote usage and status monitoring-Smart devices can keep their owners or data center informed of the situation. Or allows remote control over the Internet.

The big data business model can be explained in the table below;

Table 1

Typology of the Big Data business model

Type	Functions	Dependence
Users	Using data to make strategic decisions, using information when entering information into products	Suppliers depend on raw materials and expertise to support infrastructure
Suppliers	Collection of primary data Collection and sale of packaging data	It depends on users as the source of their data, infrastructure managers and skills.

Managers	Infrastructure support, outsourcing analysis consulting	Depends on users and suppliers as a consumer
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Source: R.Schroeder “Big data business models: Challenges and opportunities” 2016.

There are two main types of blockchain technology, and both are evolving today. They are:

- A public blockchain is a database that can be opened, filled in, and added to additional blocks. Such a blockchain is widely used in the Bitcoin cryptocurrency. Each participant will have the opportunity to read and write information.
- The private blockchain is based on the principle of appropriate restrictions on writing and reading data. Participants can read all the information that belongs to them or write down only a part of this information. This gives a group of participants the right to access and record information within a transaction.

- Decentralized - there is no server in the blockchain, each participant supports the operation of the server and the entire blockchain;
 - Transparency - information about contracts and transfers remains open, so it cannot be changed. This is in keeping with the proverb: "If you have a secret to hide from someone, keep it public";
 - Theoretical infinity - when theoretically approaching a blockchain, it can be filled with an infinite number of records. So, it can be compared to a supercomputer;
 - Reliability - requires blockchain consensus to enter new data. This means filtering of transactions and the permission of a legal transaction. You can't change the hash.
- Like any technology, blockchain technology has its advantages and disadvantages;

Here are the key features of blockchain technology: Here are the key features of blockchain technology:

Table 2

Achievements	Disadvantages
The participants in the decentralized network are equal to each other and can directly exchange data.	Scalability - If bitcoin has a large share of transactions, it will need hundreds of terabytes of memory.

By using encrypted keys for transparency, communication and hacking is not possible	When data is transferred on a fraudulent blockchain, it cannot be reversed. Therefore, even if the translation was made by mistake, it cannot be corrected.
Transparency is a publicly available open-source database. The stages of execution of all transactions are easily visible	51% of attacks - if 51% of the processing power of Bitcoin on the blockchain falls on one device, the integrity is violated.
The universal blockchain can be used not only in the financial sector, but also in other areas. For example, real estate, dentistry, etc.	

Source: Compiled by the author on the basis of the analyzed literature.

The role of blockchain technology in the digital economy can be explained by the role of technology in business models based on it.

Table 3

Improved business models based on blockchain technology

Name of the business model sample	Rates	The role of blockchain	Example
Crowdfunding	The practice of financing the implementation of Vendur projects by attracting a small amount of funds from many people	The company raises funds to finance a well-known project by implementing its own personal token on Ethereum.	In dental associations, deltacoin is important as the main means of payment

Digital lockout	Limiting the use of the consumer ecosystem	Users with tokens will be able to use this technology	Regulates the payment of tokens for medical services between the office and the client
To automate	Making «smart» deals to reach agreements	“Smart” contracts	Automated billing system for insurance companies, banks and hospitals
Get rid of intermediaries	Services and products reach the consumer without suppliers	It works on the basis of consensus in the management system. No need for central equipment	Bitcoin was created to eliminate the central role of banks in monetary transactions

Source: Daria Salekhar "Evaluating Template-Based Blockchain Technology as a Catalyst for an Innovative Business Model", 2017

According to the World Bank, the digital economy will change more than 50 percent of the economy. The creation of information technologies and platforms is fundamentally changing the way we do business. In addition, a 10 percent increase in high-speed Internet in many countries led to an increase in GDP from 0.4 percent to 1.4 percent. According to a 2010 study by the Boston Consulting Group, digitalization in the G20 countries is estimated at \$ 2.3 trillion. This is 4.1% of world GDP. According to the company's scientific forecasts, this figure should reach 30-40% in the next 10-15 years. In developing countries, ICT employment accounts for only 1% of total employment, compared to 4.9% in the high-tech sector in developed countries. This is a process that occurs as a result of the digitalization of the economy. In some cases, the economic value of the digital economy is determined by meeting the demand for

electronic services and information. Of course, this can be determined by the extent to which implemented electronic services reduce transaction costs than traditional ones. However, many economists value their economic value through investment in ICTs. New Economic Technologies (NIT) is a general concept of technologies and platforms between economic agents and producers that provide minimal transaction costs and are necessary for the creation, transmission and storage of information used in the creation of a product or service.

The main principles of the NAP are as follows:

- Development of completely new business models;
- Integration of organizational and technological processes and their methods and various information channels in the real sector of the economy;

- Reduction of material resources and transaction costs in production.

If we look at recent economic history, it is natural that modern economic development is based on GDP, and trade and financial technologies have shown their effectiveness in production. As already noted, as a result of the increased flow of information, its storage, processing and transmission, on the one hand, requires the introduction of new technologies at all stages of production, on the other hand, data analysis allows you to make management decisions and decisions."

Key factors in the transition to the digital economy:

- Implementation of e-government systems;
- Implementation of the "Smart City" project, in which all services are digitized;
- Creation of business incubators and co-working spaces;
- Expansion of national internet trading platforms;
- To open wide opportunities for the system of venture financing in the implementation of ICT projects.

These factors create business opportunities in the digital economy. These include reducing production management costs, selling goods and services through e-commerce platforms, leveraging competition and venture capital innovations, and promoting them. In the digital economy, modern business community problems are relatively inexpensive, fast, convenient, and solved without suppliers. For example, when ordering a taxi through Uber, e-commerce e-Buy, Internet banking, etc. These examples illustrate the role of dealers in delivering goods in marketing through automated systems (websites or mobile applications). As a result, some of the value added or transaction costs that suppliers add

to the cost of goods and that is difficult for the manufacturer to control are automatically reduced. Uzbekistan is also taking important steps to strengthen the regulatory framework of the digital economy. In particular, the Decree of the President of the Republic of Uzbekistan dated July 3, 2018 No. PP-3832 "On measures for the development of the digital economy in the Republic of Uzbekistan" was adopted. Implementation and development of activities in the field of turnover of crypto assets in the Program for the development of blockchain technology for 2018-2020, including by creating a legal framework for the organization of this activity, including the possibility of selling crypto assets on local and international crypto exchanges; From January 1, 2021, the introduction of blockchain technology in the activities of state bodies, including in cooperation with other state bodies and organizations, public procurement, public services, verification of personal data, to the corporate governance system of large commercial organizations in which the state's participation in the authorized capital is a priority, including improving business processes, optimizing production, administrative and operational processes, as well as the introduction of modern management and resource management of enterprises. Decree of the President of the Republic of Uzbekistan of September 2, 2018 PP-3926 "On measures for organization of activities of crypto exchanges crypto exchanges in the Republic of Uzbekistan" from 2 September, 2018 "Digital Trust" Decree № PQ-3927 "About creation of Fund of support" also plays an important role in the development of the digital economy. Development of the digital economy of Uzbekistan - competitiveness and national

development, production of high-tech products and use of digital technologies for the benefit of the population. "Strengthening, motivation, formation of needs and desires.
Conclusions and suggestions

Analysis of new business technologies in the digital economy and their characteristics allows us to draw the following conclusions:

1. The development of the digital economy of Uzbekistan should be based on the following principles:

Table 4

<p>The principle of regulating the digital economy</p>	<p>This principle provides for the development of information technologies, the creation of a new regulatory environment that provides a favorable legal regime for the development of information technologies, the prevention of discrimination and the use of information depending on the rights and legitimate interests of subjects and owners of information, as well as activities related to the use of information and telecommunications.</p>
<p>The principle of information security</p>	<p>The essence of this principle is to ensure the protection of human rights, freedoms and legitimate interests when using information and communication technologies, including confidentiality, personal and family secrets, personal data, and data of adult users.</p>
<p>Principles of creating a learning environment in the digital economy</p>	<p>This principle implies the creation of an educational environment in which citizens have the opportunity to improve their digital competencies. Such an environment contributes to the integration of digital competencies into the system of national qualities and the emergence of new professional and educational standards.</p>

Source: compiled by the author on the basis of the analyzed literature.

2. In Uzbekistan, government agencies, banks and businesses should switch to the use of blockchain technology, which is convenient and perfect from the point of view of information security. For example, the use of

blockchain technology in the cadastral system can be effective for business.

Therefore, the following results can be expected from the use of this system;

- Provides complete transparency of processes through the system;

- The term for obtaining an electronic cadastral passport has been reduced from 50 to 2 days;
- There is a chance to enter the top 30 of the Doing Business rating;
- Transition from the cadastral tax to the "Smart card" (SMART card), so the following results can be expected from the use of this system;
- Provides complete transparency of processes through the system;
- The term for obtaining an electronic cadastral passport has been reduced from 50 to 2 days;
- There is a chance to enter the top 30 of the Doing Business rating;
- From the cadastral fee to the "Smart card" (SMART card).

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