

**SCIENTIFIC AND THEORETICAL ASPECTS OF THE STAGES OF FORMATION
PROJECT MANAGEMENT AND DEVELOPMENT OF THE DIGITAL ECONOMY**

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<https://doi.org/10.5281/zenodo.20354772>

Abstract. The article reveals the questions of scientific and theoretical aspects of the stages of formation project management and development of the digital economy. For beginning business analysts, it's a way to streamline operational activities. For mature companies, it's the foundation for implementing BPM systems and scaling.

Key words: modeling, project management, business, digital economy, key processes, digital systems

1.Introduction

The Digital Economy model, published in 1994 by Canadian scientist Don Tapscott, has dramatically changed our lives. The essence of the development of digital innovations, including cloud computing, mobile marketing, and artificial intelligence, is to increase the well-being of the population.¹

In the process of globalization, the role of the digital economy is becoming increasingly important in determining the competitiveness of countries. No matter what sector or area of the economy we look at, we see the role of digital technologies in all of them. We can observe the increasing share of innovative digital technologies, from services in the country's banking system to public services.

Business process modeling is a modern management tool that helps companies improve efficiency and reduce costs. In this article, we'll explore the goals and stages of modeling, examine key methods and tools, and demonstrate how companies use standards and model examples to improve their operations.

Business modeling is the process of creating a logical and visual model of a company's operations, reflecting all key processes, participants, and the relationships between them. It allows you to do more than just "draw" a diagram; you create a complete system in which every step can be analyzed, optimized, and prepared for automation.

Business modeling helps:

- formalize the company's internal structure;
- eliminate chaotic task execution;
- build a transparent and manageable logic of actions;
- establish goals, milestones, and process results.

¹ Chihiro Watanabeab, KashifNaveeda Yuji Touc , Pekka Neittaanmäkia . Measuring GDP in the digital economy: Increasing dependence on uncaptured GDP. Technological Forecasting and Social Change, Volume 137, December 2018, Pages 226-240.

2.Theoretical framework and literature review.

For beginning business analysts, it's a way to streamline operational activities. For mature companies, it's the foundation for implementing BPM systems and scaling. Thanks to business modeling, a business becomes predictable, controllable, and ready for digital transformation.

The digital economy is an economy based on the traditional economy. The digital economy, unlike the traditional economy, is aimed at the rapid informatization of society, and also includes areas and business processes based on the widespread introduction of digital technologies through information and communication technologies and the Internet

In fact, the first manifestations of the digital economy go back to the first manifestations of telecommunications created by D. Bell. After that, in the 50s of the last century, the creation of the SABRE program by IBM and its application in the process of booking and purchasing airline tickets by American Airlines began a new turn in the creation of digital systems. Since the 90s of the 20th century, as a result of the use of the Internet as a global network, the level of digitization of economic sectors and industries has gradually increased.

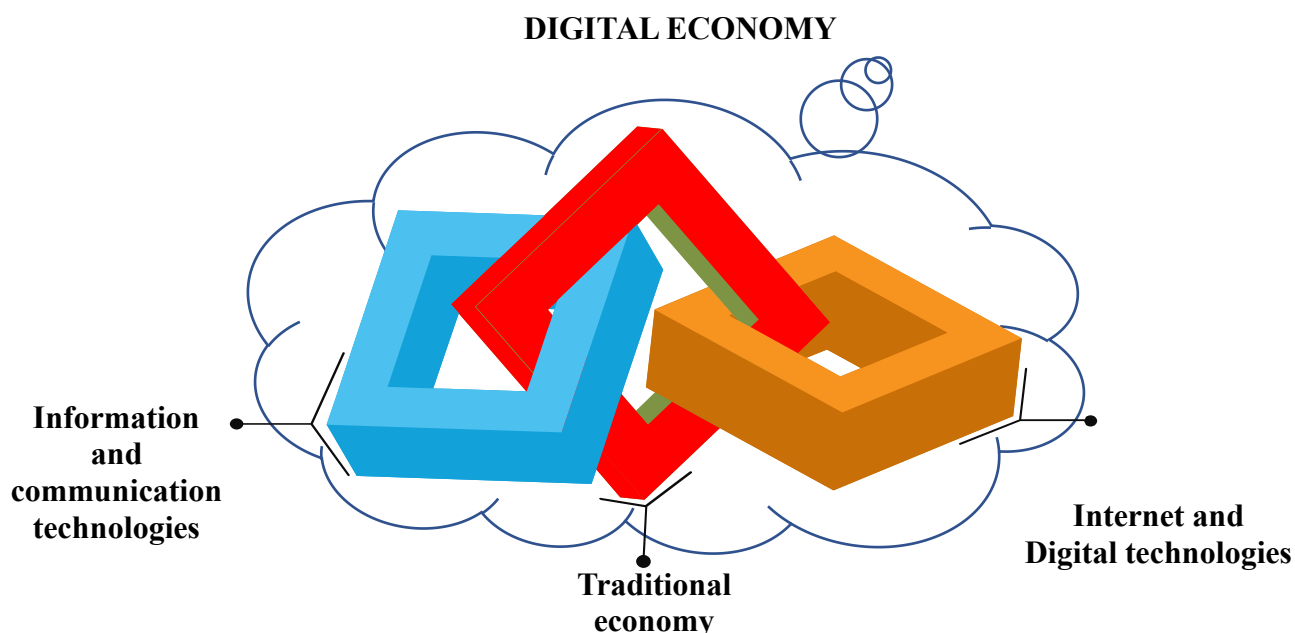


Figure 1. Traditional economy and the dependence of the digital economy.²

3.Literature review.

The level of study of the problem. The theoretical and methodological foundations of the development of the regional digital economy were researched in the works of American and European scientists such as N. Negroponte, G. Moore, B. Imla, D. Tapscott, T. Mezenburg, L. Margerio, E. Bryanjolfson, M. Gumaha and Z. Jamaluddin, and the concept of digital economy was developed.

The theoretical and methodological issues of the digital economy are also studied in the works of scientists of the CIS, N.K.

A whole complex of scientific research by local scientists is devoted to solving issues related to increasing the competitiveness of the national economy of the Republic of Uzbekistan in the context of the formation of a digital economy, improving the theoretical and practical aspects of

² Author development.

the digital economy, as well as the introduction of digital technologies into state and public administration. S.S. Gulyamov, T.S. Kuchkarov, A.T. Kenzhabaev, A.T. Shermukhamedov, Sh.Sh. Shokhazamiy, V.K. Kabulov, R.H. Ayupov, A.M. Abduvokhidov, A. Abdugafarov, Yo.A. Abdullaev, A.B. Bobojonov, B.K. Gayibnazarov, N.M. Makhmudov, I.K. Mirzaev, A.A. Musaliev, Sh.G. Odilov, D.M. Rasulev, B.T. Salimov, Z.Kh. Toshmatov, M.L. Tursunkhodjaev, T.F. Bekmuratov, R.A. Dadabaeva, N.Kh. Khaidarov, B.Yu. Khodiev, T.Sh. Shodiev, I.E. Zhukovskaya, O.M. Abdullaev, G.R. Studied by Baltabaeva et al.

4. Method and methodology.

The reliability of the research results is explained by the fact that the information base used is taken from official sources, the compliance of the developed proposals and recommendations with the adopted priority directions and programs for the development of the republic's digital economy, their approbation and publication in national and foreign publications, and the approval of the results obtained by authorized organizations.

Scientific and practical significance of the research results. The scientific significance of the research results is explained by the fact that local government bodies have created methodological support for the development of the digital economy and can be used to improve the system for the development of the digital economy of the regions of the Republic of Uzbekistan and carry out scientific and research work on the development of the sector.

The practical significance of the research results is explained by the fact that the developed proposals and recommendations can be used in the adoption of the national concept "Digital Uzbekistan-2030", in the preparation of regulatory legal acts on the sector, and in the development of programs aimed at the development of the digital economy in the regions.

5. Main part and analysing.

The stages of development of the digital economy were formed after the research of Don Tapscott and can be explained as follows:

Stage 1. (1995-2000). Automation of technology and business processes.

Initially, it is appropriate to distinguish the following three types of the digital economy:

- electronic business infrastructure (networks, software, computers, etc.)

- e-business, that is, the process of organizing a business using computer networks;

- electronic commerce, that is, the retail sale of goods. However, with the widespread use of new technologies: "Big Data", "Cloud computing", "Blockchain technology", "Cognitive computing", "Internet of Things", "Robotics", "Financial technology (FinTech)", as well as "Virtual goods" (virtual products: games, music, films, books). This concept has acquired a broader meaning and has become a central element of the digital economy (Figure 1.2).

Terms such as "Informatization" and "Cybernetics", which were widely used abroad and in our country, have left scientific and practical use, and increasingly the expressions "digitization" or "digital transformation" have become widely used. In industry, changes in technology and business processes under the influence of the digital economy have created the fourth industrial revolution (Industry 4.0).

E-Business Infrastructure (e-business infrastructure):

- networks, software, computers, etc.

Electronic business (e-business):

- areas of business that use computer networks.

Electronic commerce (electronic commerce):

- Blockchain , Cognitive computing, Robotics, Virtual Conducting commercial activities through goods and other digital technologies.

Figure 2. Early types of digital economy.³

Stage 2. (2001-2010). Universal connectivity, sensor devices and the widespread use of "BigData" in trade and industry.

This period was characterized by the development of digitalization of the economy in developing countries. In particular, the introduction of investments from the USA, the European Union and Japan into innovative industries and sectors in the Republic of Korea, China and India, as well as companies focused on software production, led to the widespread use of big databases in trade and industry.

Stage 3. (2011-2017). The application of the concept of "Smart Factory" (smart factory, smart production) in industry, information exchange between government agencies and citizens, and the adaptation of banking activities to the innovations of the digital economy.

The ideas of the digital economy, as an integrated phenomenon, have gradually entered the political agenda of governments, which have begun to develop and implement national digital strategies, and international organizations that are engaged in coordinating digitalization efforts.

For example, in 2015, in Antalya, the G20 leaders adopted a final document entitled "Development and Cooperation in the Digital Economy (G20 Digital Economy Development and Cooperation Initiative)", in 2016 at the ministerial meeting in Cancun, the countries of the Organization for Economic Cooperation and Development discussed common goals in the field of the digital economy, and in 2017 in Hamburg, common approaches to regulating the digital economy. As a result, the digital economy sector has become a driving force for innovation in the world, and today, the costs spent by enterprises on research and obtaining patents account for a large part of total costs.

Despite various challenges over the past few years, Facebook continues to dominate social media platforms. User trends reported by the company show that the platform has a total of over 2.6 billion historical users, and the number of users continued to grow steadily in most countries throughout 2019 (Figure 1.3).

Stage 4. (After 2017). Digitalization of industries and services, with a sharp decline in jobs. Characterized by the emergence of new industries and services.

³ Author development.

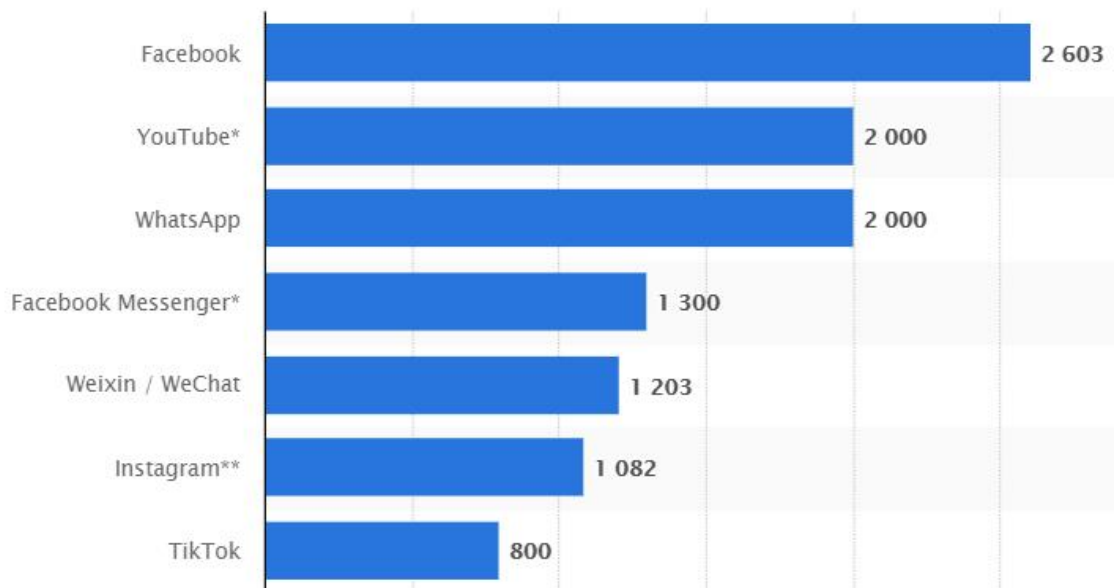


Figure 3. Ranking of the most popular and active social networks worldwide, as of July 2020 (in millions)⁴.

The speed of the digital economy is explained by the following figures:

-About 4 billion people use the Internet, 53% of whom use the "Mobile Internet" (mobile Internet);

-Internet users in the European Union countries are as follows: 97% of those aged 16 to 24 and 63% of the elderly (aged 55 to 74) use the Internet;

-5.5% of workers in the global economy are ICT specialists. Of these, 1.4% are women;

- 90% of business people are connected to the Internet, but only 20% use digital technologies in production.

Google experts predict that by the end of 2020, the number of Internet users in the world will exceed 5 billion people. (Figure 1.3).

Conclusion

Within the framework of the new economy (digital economy) of the 21st century, scientists and politicians understand a number of new economic phenomena and processes. Usually, everyone takes the process that is closest to it and recognizes it as the basis of the new economy.

Taking this into account, the number of people employed in the ICT sector is increasing every year. According to the Boston Consulting Group, the share of the digital economy in the gross domestic product of developed countries was 1.2% in 2010, and at the end of 2016 it amounted to 5.5%. In developing countries, this indicator led to an increase in GDP of 3.6-4.9%. England emerged as the world leader in the digital economy, its share in GDP was 12.4%. In the economy, spending on e-commerce and e-government ranks second after real estate. The McKinsey Institute estimates the share of the digital economy in the GDP of the European Union countries at 8.2%, for the USA and China at 10%, and for Russia at 3.9%, and it is predicted that by 2025 the digital economy will triple in size and its growth in the composition of gross domestic product will range from 20% to 34%. Such serious economic forecasts are associated not only with the automation of existing processes, but also with the introduction of advanced digital business models and technologies. The digital economy creates the opportunity to attract

⁴ Global social networks ranked by number of users 2020. Published by J. Clement, Aug 21, 2020. <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users>.

many participants in the economic system, each of which seeks to use this system. As a result of this process, various ideas, initiatives and possible paths for development will emerge.

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