



Article

Features, Trends and Ways for Further Development of Management Services in the Conditions of the Digital Economy

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Abstract: The article analyzes the features, trends and ways of further development of management services, the current state and global trends in the development of the digital economy, and proposes measures for its further development in Uzbekistan. The article also examines the study of the management of the service of the innovation ecosystem in relation to the objects of the innovation infrastructure. To achieve this goal, the following tasks were solved: a description of management as a service was given, its differences from traditional management were identified and the main principles were determined; an analysis of digital technologies - drivers of economic transformation; correlation of the concepts of management service and digital services, determination of the advantages of their symbiosis in the context of digitalization of the economy. On this basis, the possibilities and advantages of digital technologies were studied, and the properties of the digital management service of the innovation ecosystem were determined.

Keywords: management services, service, digital economy, digital technologies, innovative ecosystem, management, intellectual service.

1. Introduction

The rapid development of digital technologies leads to fundamental changes not only in the economy, but also in society itself. Thus, by reducing information costs, digital technologies significantly reduce the cost of economic and social transactions for the state, companies and individuals; promote innovation, in which transaction costs become virtually zero, and dramatically increase efficiency: existing activities and services become cheaper, faster or more convenient. Finally, digital technologies promote integration: people get the opportunity to use services that were previously unavailable to them. In parallel, an information market is being formed, which is characterized as a pool of social, legal and economic relations that develop in the sphere of purchase and sale and exchange of information products between consumers, producers and intermediaries[1]. This approach strengthens the dominance of the information industry in the economy of a number of countries, the sphere of production and services is becoming increasingly knowledge-intensive and innovative. The conditions for the development of the digital economy inevitably lead to changes in all spheres of society. Firstly, the emergence of new information and digital technologies makes it easier for the population to obtain social and household services; secondly, it creates opportunities for rapid analysis and exchange of information between the country's leadership and the regions; thirdly, competition is growing, investment in innovation is being stimulated, etc. In this way, a digital type of production of goods and a digital way of consuming them are being formed. Since new challenges of our time require the development of new

Citation: Kudaibergenov A. Sh. Features, Trends and Ways for Further Development of Management Services in the Conditions of the Digital Economy. American Journal of Economics and Business Management 2025, 8(3), 1062-1066.

Received: 14th Feb 2025

Revised: 28th Feb 2025

Accepted: 6th March 2025

Published: 13th March 2025



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methods for solving economic, social and environmental problems, management is not left out. Today, it is turning into a service, but not a simple service, but an intellectual and digital one. "In the context of the rejection of standardization in favor of creativity, from mass goods in favor of individualized ones, from the unification of processes in favor of their diversity, higher demands are placed on the competencies of personnel and their knowledge acts as tools of labor"[2]. Intellectual activity, unique competencies, information and communications are becoming key factors in competitiveness and economic development. Therefore, "if labor becomes more creative, then the tools and means of labor must be more diverse, that is, intellectual".

Literature review on the topic

It is especially important to emphasize that management, as an influence on someone in its traditional sense is not capable of solving the tasks that the digital economy requires from it. For example, the innovation sphere consists of creative individuals, idea generators, innovation ecosystems (IES) and infrastructure that have a non-traditional and non-hierarchical structure, so they require a special approach, "soft" influence, coordination of their activities, etc. Thus, V.V. Ermolenko says: "the accumulation of knowledge by a group of people classified as intellectual human capital fundamentally changes the content of management. Management is in demand by the bearers of intellectual human capital only as a service activity"[3]. On this basis, it is appropriate to recall the words of W. Ashby: "if more diverse behavior is required from the object of management, then its management should be even more diverse". The appearance of special types of IES systems is changing, they are moving to other organizational platforms (open network, open innovation, free movement of ideas, temporary creative groups, innovative projects) - all this gives rise to new properties of innovative ecosystems. Therefore, we are talking about the need to move to a new quality of management taking into account modern trends - digital management intellectual service.

V.I. Mukhopad and L.N. Ustinova rightly note: "Digital technologies are a significant component of knowledge management, it is important that their application is part of a system-wide approach to managing the entire system of scientific research activities"[4].

A.R. Mannapov emphasizes the need to create "systemically organized innovation activities for the continuous creation of innovations, their implementation, launch on the market and their wide distribution, which presupposes the presence of professionally built innovation management"[5].

Authors such as I.L. Avdeeva, T.A. Golovina and L.V. Parakhina believe that "the key factor for success in the digital economy is new models of technology and data management that allow for rapid response and modeling of future challenges and problems for states, businesses and civil society"[6].

N.Yu. Kaufman says that "in the context of the formation of a digital economy, effective knowledge management is necessary, which is characterized by the highest level of development of the creative potential of the human personality as a carrier and generator of knowledge"[7].

Thus, in order to maintain the economy in a competitive position in the innovation sphere and follow modern trends, management must become flexible, focused on the final result, specific developer and satisfy his requests in a soft and tactful form using the achievements of modern digital technologies.

2. Materials and Methods

The research was based on the well-known achievements of domestic and foreign scientists in the field of digitalization of the system of generalized economic relations between service sector entities arising from the production, distribution, exchange, and consumption of goods in the context of mastering the potential of information and communication technologies. Their integrated use is implemented in the research algorithm from the disclosure of methodological approaches to the study of economic processes and phenomena to the identification and disclosure of features inherent in the digital economy. During the study period, empirical research methods, systematic and comparative analysis, statistical grouping, and expert evaluation were used.

3. Results

On this basis, the purpose of this article is to analyze management as a service of the innovation ecosystem for the innovation infrastructure within the framework of the digitalization of the economy, taking into account the integration of management and digital technologies.

To achieve this goal, it is necessary to solve the following tasks:

- ⊗ characterize management as a service, identify its differences from traditional management and define the main principles;
- ⊗ analyze digital technologies as drivers of economic transformation;
- ⊗ correlate the concepts of management services and digital services, determine the advantages of their symbiosis in the context of digitalization of the economy.

The innovation ecosystem “creates conditions for ensuring the transformation of the results of intellectual activity into innovative goods (or) services” that are in demand in the innovation market. As a rule, its infrastructure includes up to 30 different types of objects whose activities are aimed at generating ideas, mastering innovations, marketing innovations, commercializing, etc[8]. “The infrastructure of the innovation ecosystem, according to the holistic approach, is a weakly structured system characterized by the following main properties: qualitative factors dominate over quantitative ones, the criteria for evaluating alternatives to decisions taken are, as a rule, of a subjective nature (both on the part of the innovation market and in the innovation system itself)”. However, the question of how to manage such a system remains relevant[9]. What management methods should be applied when the system is non-hierarchical and non-traditional? As is known, management in its traditional form is characterized by a focus on an object, a target setting and a form of influence (direct or indirect) on personnel. In this case, its basis is power, discipline, regulation, responsibility, formation of any rules, establishment of deadlines, etc. However, it is not possible to apply this type of management to the innovation ecosystem, since, firstly, it lacks a clear structure, secondly, and the diversity of the infrastructure does not allow forming clear management criteria, thirdly, freedom of creativity does not allow predicting further actions of the management object and, fourthly, the dynamism and inconstancy of the system. Taking into account the specified features, it should be noted that the management of the infrastructure of the innovation ecosystem should be unobtrusive, “soft”, without administration and targeted impact[10]. Here we are talking about the transformation of management into a service, since at the current stage of economic development “it is the processes of “servitization” that are becoming increasingly popular and are an effective way of regulating many economic relations, including innovative ones”.

4. Discussion

It should be with the interpretation of the results and their comparison with those of other studies. No need to repeat the results, review literature, references that do not have a close relationship with the present result in the manuscript. Thus, service is understood as “... a system of supporting any basic service with additional ones, distributed across forms, types and organizations, which make this service especially attractive for the consumer”. It is important to note that quality service should be provided in a timely manner and with great attention to the partner’s problems being solved[11]. In the context of an innovative ecosystem, the client is intangible capital, which produces intangible assets in the course of creative, scientific and intellectual activities. Since the object of management is largely “fickle”, “inconsistent”, the management itself cannot be direct, rigid and administrative. Therefore, unlike traditional management, the basis of service is efficiency, accessibility, friendliness, knowledge and professionalism[12]. In turn, a management service is the creation of comfortable conditions for the implementation of innovative activities by providing high-quality management services and coordinating creative individuals, as well as network interactions of knowledge workers. Thus, G.N. Konstantinov sees the main task of the new management in “creating and supporting a space for the development” of people. In the new world, it is necessary to manage knowledge flows and strive to build up organizational maturity [13]. “To successfully solve these problems, management must not only be professional, competent, and effective. Management must become wise”. As part of the activities of the innovation ecosystem, the management service must solve such problems as competent and professional coordination of the activities of knowledge workers, analysis of non-standard planning tasks, ensuring creative activity, motivating knowledge workers, determining the performance indicators and effectiveness of their intellectual activities. The service nature of management is aimed at developing intra- and inter-organizational relations, is entirely focused on the researcher, on the final result, focuses on market procedural knowledge and the functions performed by the personnel of the innovation subsystem. It is important to note that “management of systems with a fuzzy structure, the most important of which is human consciousness, is impossible without relying on self-organization, i.e. on the search for a source of development within the system itself”[14]. Thus, the following can be identified among the main features of the management service: indirect impact on the object; duration; tact;

detailed interaction with the object; a wide variety of means, the ability to influence mass consciousness; development of individual qualities of workers and identification of hidden abilities and talents; creation of a comfortable environment for mental work.

It should be noted that management methodology is moving away from hard methods into the past. The transition to soft management methods is taking place in the context of a change in scientific methodology, in which synergetic is increasingly gaining weight. Such management, which has all the characteristics of a service, is becoming intelligent, and in the context of the digital economy, it is supplemented by digital technologies, which will ultimately improve its quality.

The main motive for digital transformation is determined by the desire of a digital person for timeliness, accessibility, quality and personalization, while the main principle for the digital paradigm is "everything as a service, and a service focused on data and sharing of information resources". The rapid development of the digital economy contributes to the fact that service is becoming a full-fledged element of the production process. Its main advantage is to provide conditions for activity, creating positive effects for the consumer. Therefore, digital services and a modern approach to the development of "smart" spaces make human living conditions more comfortable. "A smart space is a digital environment in which people and technology systems interact openly in connected and coordinated intelligent ecosystems" [15]. It is important to note that this is a key point for the innovation infrastructure, since without clear cooperation and rapid exchange of information between all objects, the process of creating an innovation will not be able to be implemented at the proper level, without delays and data distortion. However, understanding the essence and implementation of a digital service in the activities of an innovation ecosystem is not enough, since it is necessary to understand that a complete transformation of all business models, management, reassessment of values, as well as the development of new skills and competencies of personnel, readiness to use new digital technologies in everyday life are required. Since in the near future, it is the effective use of digital technologies that will determine the international competitiveness of all entities that form the infrastructure and legal environment for digitalization, contributing to the creation of high-tech products and services[16].

Thus, digital technologies are understood as technologies with electronic data, the functioning of which is based on software, hardware and systems in demand in all sectors of the economy, creating new markets and changing business processes". They contribute to the fundamental transformation of society, and in the innovation sphere they allow creating an effective communication system in the field of science, technology and innovation, accelerating the processes of information processing and management decision-making, ensuring an increase in the receptivity of the economy and citizens to innovations, creating all the necessary conditions for the development of knowledge-intensive business [17]. Today, nine digital technologies are distinguished, but many of them are divided into several subtechnologies. We analyzed ten digital technologies and one subtechnology and identified the advantages of their implementation in the economy and innovation ecosystem.

It should be noted that thanks to digital technologies, the provision of certain services is significantly simplified. For example, blockchain technology is very useful in the innovation sphere, as it can ensure reliable recording of information and its security, and a single database can efficiently search, monitor and systematize research, and compare developments. Wireless communication technologies allow analyzing the situation at a great distance, quickly exchanging information, organizing online conferences, exhibitions of innovative projects, etc.

Thus, a digital service has such important qualities for an innovation ecosystem as accessibility, customer focus, mobility and speed, availability and ease of use, since the innovation sphere is particularly demanding and receptive to the organization of its activities[18].

The growth of the service sector is changing traditional ideas about management, as it is also forced to transform and attract new methods. This is especially important for the innovation ecosystem, as idea developers cannot conduct research within clear guidelines, time constraints, in bureaucratic conditions or in a strict sequence. They need good and high-quality service from the infrastructure, which will provide opportunities for unimpeded interaction, exchange of experience, create a favorable innovative environment for creativity, be able to satisfy the needs of each developer, coordinate activities, provide resources, etc. Here we are talking about the fact that management as a service facilitates activity by creating all the necessary conditions for this, and does not ensure the implementation of the required behavior from objects. However, thanks to digitalization and the development of digital services, the functionality and capabilities of the management service are significantly increasing[19]. Thus, developers gain access to a global

knowledge database, are included in advanced scientific and technological processes, have the opportunity to communicate with colleagues from different countries, international partners, and the use of digital technologies allows identifying promising areas of development, forming justifications for investment projects, predicting market behavior, systematizing developments and reliably protecting intellectual property.

5. Conclusion

In conclusion, we note that the development of digital technologies changes traditional approaches to business, economics, has a direct impact on the management system, customer service, etc. The same thing happens in the innovation ecosystem. If innovations are created using advanced technologies, then the management of these processes should also be modern and technological. On this basis, the following conclusions can be drawn:

- ⊗ unlike traditional management, which was formed as an influencing factor, management as a service has a completely different character - not to encourage action, but to actively promote it;
- ⊗ thanks to digital technologies, new opportunities for interaction, production, storage, processing and transmission of data, provision of services online, etc. appear. The innovation ecosystem also receives great advantages not only in the field of research, but also in its recording;
- ⊗ the symbiosis of management services and digital services based on digital technologies allows optimizing the processes of creating innovations, their commercialization, conducting patent research, reporting and analytical activities.

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