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Article

The Institutional Characteristics and Model of Service Relationships in Innovation Economy

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Abstract: The innovative economy is reshaping the operational dynamics of industries, particularly the service sector, which plays a pivotal role in supporting agro-industrial complexes. Agro-industrial complexes operate as integrated systems, combining production processes, service functions, and the adoption of innovative technologies. To remain competitive in the innovative economy, these complexes require a robust synergy between service relationships and institutional frameworks. This article investigates the characteristics and models of service relationships within the innovative economy, emphasizing their application in agro-industrial complexes. The study explores effective strategies for optimizing service systems and management techniques tailored to the unique needs of agro-industrial operations. By addressing the challenges and opportunities in these sectors, the research contributes to advancing the structure and functionality of service systems, ensuring sustainable growth and enhanced competitiveness in the context of an innovation-driven economy.

Keywords: Innovation management, Institutional frameworks, Technological integration, Competitive strategy, Operational optimization

1. Introduction

The innovative economy continues to grow its service sector rapidly. Service delivery to agro-industrial facilities must adopt new technology methods to match customer requirements. The innovation economy builds advanced service methods which spawn new offerings and products. Advanced service strategies in agro-industrial complexes blend production and service functions better to work more efficiently. Information technology along with digital platforms enables agro-industrial complexes to create modern service delivery systems [1].

The new innovation economy brings new patterns to how services connect between people. Agro-industrial complexes use different structures to manage their service delivery systems. These framework structures depend on government rules plus strong private sector operations and competition. The state holds key power over its regulations that shape innovation industry development, lexes require the application of new technologies, production methods, and management approaches in line with market demands. In the innovation economy, service processes are improving in quality, leading to the creation of new services and products. The development of service provision through innovative approaches, particularly in agro-industrial complexes, enhances the integration and efficiency of production and service processes. For instance, information technologies, digital platforms, and other innovative solutions help develop new forms of service provision in agro-industrial complexes.

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The institutional characteristics of service relationships are changing under the conditions of the innovation economy. In agro-industrial complexes, the service system is organized through various institutional structures and mechanisms. These structures include government policies as well as supporting competition and effective management in the private sector.

The institutional structure of service relationships in agro-industrial complexes includes the following key elements:

State Policy and Regulation - the role of the state and its influence as a regulator in the innovation economy is significant. The state establishes the proper foundations to create service rules and direct economic performance.

The effectiveness of agro-industrial complexes depends on market competition systems and economic interactions. Service delivery structures need to serve market needs to function effectively.

Research and development drives innovation by enhancing service methods while creating better technologies.

The innovation economy requires mutual cooperation between businesses and government. Agro-industrial complexes benefit from productive service systems when the private sector leads them supported by the public sector.

Service Model in Agro-Industrial Complexes. The components of the service model in agro-industrial complexes and the main directions for improving its efficiency are changing under the conditions of the innovation economy. Agro-industrial complexes need effective models to coordinate production processes and the service system. The components of these models may include:

1. Integrated Service Model - The integration of production and service processes in agro-industrial complexes enhances the efficiency of business processes. These processes can be managed and optimized through the application of innovative technologies.
2. Sustainable Development Model - The service model in agro-industrial complexes should be based on sustainable development. This allows for the creation of services that are environmentally, economically, and socially sustainable.
3. Data-Driven Decision-Making Model - Innovative approaches to information systems and data analysis can be applied to improve service processes in agro-industrial complexes. In such models, decisions are made quickly and effectively based on data.
4. Organizational and Technological Model - The organization and management of service processes in agro-industrial complexes, as well as the integration of technological solutions, should be implemented together. These models use innovative approaches to introduce technologies and optimize organizations.

Literature Review

Yet, information about the development of the innovation economy and the institutional features of service relationships in agro industrial complexes has a large scientific basis. These studies emphasize the relationships between novel technology, economic management and regulatory institutions as well as their implications for the provision of more efficient services in the agro industrial sector. We analyze literature to understand the institutional characteristics as well as the model of service relationships of an innovation economy [2].

In particular, there are many studies of the particular characteristics of service provision in the innovation economy. For example, the theory of Creative Destruction J. Schumpeter stresses the role of innovative technologies in the development of the service industry is defined. Innovation, new approaches, and technology in the service sector are

seen by Schumpeter (1934) as the main force driving economic development. This view offers new grounds to develop service systems in the innovation economy [3].

Additionally, as shown in H. Christensen's (1997) book Innovative Approaches, innovation is a great tool for his optimization and process of producing and delivering services. The service sector relies not only on innovations in creating new forms of products, but also on innovation in learning how to better provide the services and the ways in which they are delivered.

What should be highlighted is that the institutional characteristics of service relationships are in one part influenced by economic and technological as well as in other parts by social and political elements. D. Their book 'The institutional environment and economic development' (North 1990) fixes economic development and efficiency of the service sector, which depends on the institutional environment. In agro industrial complexes, this institutional environment governs the service system. However, the degree to which a government policy, regulatory framework, market mechanism determine the outcome of mobile electricity generation will ultimately depend on each country [4].

Additionally, P. Aghion and P. Howitt (1992) in their work "Innovation and Economic Growth" discuss the role of institutions in the development of innovation processes. In improving the efficiency of service provision in agro-industrial complexes, especially through the application of innovative services and technologies, the importance of new institutional systems is substantial. Institutional systems play a key role in creating the infrastructure needed to ensure effective management and service quality [5].

Various scientific studies are carried out for the improvement of service relationships' model in the economy of innovation. As emphasized in M. Porter's (1990) Competitive Strategy, creating an innovative service model requires increasing its competitiveness, for this. As market demand for the service model evolves in agro industrial complexes, allowing competition and integrating technologies becomes key to the development of the system.

The advantage of the integrated approach to the service model, most notably in agro industrial complexes, is their interconnection with production of the service. Relatively, M. Tushmen and P. Anderson (1986) also look at the links between technology social models and the development of technologies. This requires a line and service process optimization that matches the introduction of innovative technologies [5].

The basis of improving the service system's efficiency in agroindustrial complexes consisting of information technologies and digital transformation. The research carried out in Uzbekistan, for example, S. Zainidinov (2018),"Information Technologies and Agro-Industrial Systems", has noted the possibility of a very effective management of service processes using information technologies and digital platforms. Modernization of the service system in agroindustrial complexes, and subsequently, production process optimization, is possible with the help of information technologies.

A.V.Chuvilin (2020) in the article "Digital Transformation and Agroindustry" also examines the effects of digital technologies and the internet on the results of service systems. This research addresses the importance of digital transformation in the agro industrial sector as well as novel service models implemented for the enhancement of the process.

New opportunities in service provision in agroindustrial complexes are provided with the development of innovative technologies, mainly artificial intelligence, big data, and automation. Using the service of artificial intelligence and automated systems, there are opportunities for the service processes to become more efficient, the costs can be decreased and the quality can be increased. M. Brynjolfsson and A. McAfee (2014) look at the impact artificial intelligence and automation on business and service sectors from their

book "The Second Machine Age". They say these technologies offer possibilities to improve the ordering of business process, the raising of competition, and the improvement of services [5].

Innovative solutions implementation have become a priority in the agroindustrial service system, namely, digital transformation, automation, artificial intelligence and big data technologies. They help improve service processes or increase production efficiency. Suppose information technologies provide an opportunity to communicate directly with farmers and producers. In other words, it makes service processes more optimized, costs less and better products are made. Effective management in agroindustrial complexes occurs in relation to the institutional characteristics and model of service relationships in the innovation economy. Improving the competitiveness and sustainable development of agro-industrial complexes is achieved through the development of service provision through innovative approaches. Agro industrial complexes ensure the effective integration of production and service processes under institutional structures and service models. At the same time, the introduction of innovative technologies is crucial in optimizing the service system and improving its efficiency [6].

2. Materials and Methods

For this article, the methodology proposed is integrative when used for assessing the institutional characteristics and service relationship models within an innovative economy. Case studies of agro industrial complexes were used to collect first hand primary data and to affirm dependency on technological, institutional, and managerial innovations. In order to have a textual framework, secondary data was collected from such literature, reports and documents of government agencies. The process of study was a mixture of a qualitative and a quantitative method. To more deeply understand these processes, thematic coding of the factors that underlie institutional actors, service structures, and policy mechanisms was undertaken to identify patterns and relationships. Statistical data on service delivery efficiency, economic performance and sustainability metrics in the agro-industrial complexes were used in quantitative analysis. The study also performed comparative analysis of international service model best practices such as integrated, sustainable and data driven model. The research used cluster theory to explore the synergies between the institutional knowledge flows, the service model innovations and the stakeholder cooperation.

Key stakeholders including policymakers, industry experts and service providers were interviewed and observed in the field, to capture some nuances in this. This paper analyzed the relationship between the regulatory frameworks, competition and innovation adoption. The methodology points to the use of digital transformation, automation and information technology in service delivery optimization and efficiency. The use of qualitative insights alongside empirical data enables an all inclusive understanding of how institutional and service relationship models have adapted to the economic pressure of the innovative economy.

3. Results

When discussing the innovative processes in the field, the main characteristic is not the creation of entirely new products, but the development of new technologies in economic practice based on scientific and technical achievements in complex industrial sectors, such as feed production. For example, over the last 30-40 years, excessive use of pastures in remote grazing areas and other factors encountered in agricultural economic practices have led to the degradation of fodder crops and land. The total area of pastures, which is 21.1 million hectares, has now decreased to 16.4 million hectares, or 78%, with more than 20% of the land losing plant species and types, resulting in a twofold reduction in pasture productivity. The working principle of the scientific product allows two technological operations to be carried out simultaneously.

1. Electricity generation based on renewable energy sources/solar panels, resulting in the device being powered.
2. Due to the bioplanetary system, water required for irrigation—vital moisture—is drawn from large areas of pastures through underground transmission pumps.

The working principle of the scientific product is worthy of attention if it aligns with the technical and technological parameters described by the authors. Scientific research on autonomous power supply and the use of energy sources from remote locations, with this device being used by managing entities, will allow for the improvement of pasture and hayfield productivity, prevention of soil degradation, and preservation of plant and animal life.

Such changes are rare in our country and are only dependent on these factors. In such a situation, we believe that the transition of the agro-industrial complex to an innovative development path is possible only if the conditions for knowledge transfer and formation within the framework of a cluster structure are created. For example, P. Drucker described knowledge as the main source of the world economy.

Traditional components of production are land, labor, and power. Knowledge has become a key component of the production process. Consequently, in modern production, collecting knowledge is not associated with costs but is an integral part, thus turning knowledge into a new form of production activity that is specific to scientific and educational institutions' activities at a certain time. If, firstly, it is truly useful, secondly, it is unique and only available, and thirdly, if the knowledge has not become obsolete and lost its significance, as exemplified by the above scientific developments. According to Raymond Karre de Malberg, clusters generate knowledge in three ways:

1. Various joint actions between companies, universities, and other agents strengthen competition, as competition among entrepreneurial entities increases, with knowledge flow growing due to population mobility and the social interaction of people.

Taking these three methods into account, the possibility of freely distributing knowledge seems to us to be a significant advantage of the cluster as a method for organizing product production and sales (Fig.1).

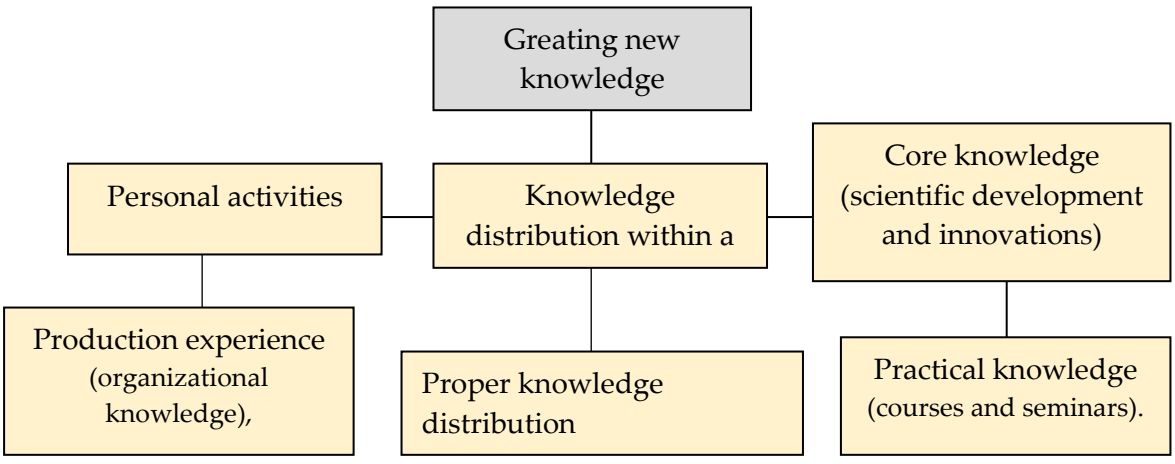

Figure 1. Model of Synergy of Knowledge Flow in a Cluster

4. Discussion

The information exchange system significantly enhances the overall competitiveness of the system, as new ideas, business processes, and technologies are available to all economic entities within the cluster. These entities, in turn, strive to apply and improve their knowledge to create new competitive advantages.

In the modern economic environment, an integral component and urgent need is the renewal and organization of trade-purchase cooperatives in agro-industrial committees based on the "purchase-storage-processing-sales" principle in the regions. At the level of local structures and rural settlements, in citizen assemblies, this allows them to be classified as small organizations. The main task, apart from effective economic activity, will be addressing the socio-economic issues of rural development [7].

This structure, within the agro-industrial committee, is aimed at limiting the monopoly of purchasing and processing enterprises. For example, the production cost of one liter of milk is 3700-4000 sum, while processing companies purchase it at a price of 2000-2300 sum per unit. In such a case, the private sector, the commodity producer, enters the price competition created by the processing industry. This example demonstrates how much additional value remains for entrepreneurial entities with market advantages. At the same time, the tasks of trade-purchase cooperatives should include forming a value chain because agricultural products — these are product types whose selling time is unknown either to the consumer or the producer. Hence, if a "One neighborhood—one product" production-technological chain is established, organizing the activities of trade-purchase cooperatives will be effective. For example, in Northern countries, agricultural cooperatives play a decisive role in developing and implementing agricultural policies, including the distribution of grants and subsidies to support agricultural production through them.

As of today, the agricultural sector has encountered a situation where cooperatives, at the level of local entities, could be the most effective form of integration into agricultural production, providing necessary production conditions to economic entities, guaranteeing product sales, and ensuring efficient use. Thus, cooperatives can become the key link in the integration chain of agricultural production with other sectors, as well as a mechanism for rationally distributing the cash flows allocated by the state in the form of subsidies and compensations. In the scientific world, there is no general understanding of what the term "cash flow" means at the moment. Specifically, this is because many scholars equate income and cash flow. In our view, the "cash flow" concept refers to the movement of funds of entrepreneurial entities and the financial support tools provided by the state for material encouragement of entrepreneurs' activities. The difference between the inflows and outflows of funds, which will be the basis of the economic relations in the cluster, can be formalized as follows.

$$SG' = SG - SR \quad (1)$$

Here SG‘ - refers to the cash flow balance
SG — refers to cash inflow
SR — refers to cash flow

Based on cluster theory, the synergistic effect of cash flows can be explained by the total cash flow of the cluster being greater than the sum of the cash flows of individual entities within the cluster.

The formalization of this effect is as follows:

$$SG' > \sum SG' \quad (2)$$

Where SG‘ - is the cash flow balance within the cluster
$\sum SG'$ — is the total cash flow of the entities entering the cluster.

The difference in values is explained by the fact that the inflows (CG) and outflows (SR) of cluster funds significantly affect the formation of demand, referred to as determiners of demand, including the emergence of more sensitive and complex customers, which leads to a higher gross demand for its products, as well as a higher demand for higher-quality goods and services.

Firstly, this leads to an increase in local demand and consumption. Secondly, it further stimulates demand for cluster products outside the region, including international markets. The integration of entrepreneurial entities producing agricultural products in the form of an agro-industrial committee can lead to the creation and implementation of:

1. Establishing a system of training and skill development for entrepreneurial entities involved in priority innovative projects
2. Introducing innovative technologies for the entire production cycle
3. Creating logistics infrastructure
4. Providing qualification, information, consulting, methodological, and marketing services.

The main idea behind forming such structures, in addition to their theoretically proven efficiency, is the fact that they maintain the legal independence of the integrated entities. This means that the integration of participants is not only for economic profit but also allows for the use of the industry's production potential through the application of innovative and promising developments and technologies. The establishment of such structures, with state involvement, solves social problems faced by rural areas.

To justify the effectiveness of the proposed structural model of the committee in the network economy, it is necessary to create a system of indicators to assess the effectiveness of the committee's own activities. In our opinion, the main and most important indicator of the effectiveness of integrated structures is the production and technological independence indices and, in general, the entire agro-industrial complex. Currently, two-thirds of the country's agro-industrial complex depends on external environmental factors. Therefore, this indicator describes its production and technological effectiveness.

The production and technological independence index describes the level of dependency of the industry on environmental factors (material and technical supply, technologies, etc.) and is calculated as the ratio of local production resource cost to the cost of imported production resources.

$$£ = Q_1 \div Q_2 \quad (3)$$

£ — Production and technical independence index

Q_1 — Value of local production resources

Q_2 — Value of imported production resources

Given that the calculated index is directly proportional to several factors, the resulting value (formula) serves as a unique link between the cost indicators of local and imported production resources, describing the level of technological independence in the production processes of the country's agro-industrial complex.

Consequently, to eliminate dependency on imports, it is important to consider the index of competitiveness (efficiency) of the production infrastructure, which includes the factors of the internal environment of the industry. The level of development of the production infrastructure for agricultural production is critical. The most pressing task for modern agricultural production is the creation of appropriate production infrastructure for rural areas.

1. The efficiency of the sector's industrial infrastructure competitiveness index is calculated as the ratio of the volume of private sector funds to the cost of the existing industrial infrastructure when creating production infrastructure development directions.

$$\beta = b_1 \div b_2 \quad (4)$$

β — Industry infrastructure competitiveness index/effectiveness

b_1 - Amount of private sector investment aimed at creating production infrastructure

b_2 — Development of the existing production infrastructure in rural conditions

The creation of production infrastructure in rural areas has socio-political significance, as the development of small industrial businesses in sectors without resources in agriculture is of great importance for rural areas, creating many jobs, and improving the technological level of agricultural production.

Social-economic stability index

$$\bar{G} = S_1 \div S_2 \quad (5)$$

$\bar{G}$ — Social-economic stability index

S_1 - Number of jobs created through the establishment of new production capacities and economic activities

S_2 - Number of existing jobs in the sector

The social-economic stability index is characterized by a decrease through the development of new types of production activities, increasing social tension, and reducing unemployment in rural areas by creating new jobs.

The export potential index, characterized by the competitiveness level of agricultural production and the main sources of cash flows needed for financial support of production processes, is the most important indicator during periods of economic activity.

$$\hat{Y} = d_1 \div d_2 \quad (6)$$

$\hat{Y}$ — Industry export potential ratio

d_1 — Volume of exported products

d_2 – Volume of products produced in the industry

The theoretical conclusions and research suggest that the implementation of agricultural production mega-projects in the republic involves multi-purpose complex programs that unite several projects, as well as hundreds of mono-projects linked together by a goal tree, requiring centralized management and coordination centers to allocate funds. On the basis of mega-projects, innovative objectives such as technical re-equipment of industries and increasing the competitiveness of local products and technologies can be achieved.

Thus, the formation and implementation of mega-projects may require the integration of efforts from various industries, including government assistance.

At the current stage, the main task of agricultural production is to ensure the sustainable growth of agro-food products, considering population growth and industrial expansion. However, it must be taken into account that there is a shortage of arable land for agricultural production in the country. Only 20.7% of the 20.2 million hectares of agricultural land is irrigated, which makes agricultural land use largely dependent on irrigation. From this, it follows that there are possible scenarios for the development of agricultural production, including inertial, intensive-technocratic, and natural-innovative scenarios, in order to optimize production and rationalize existing land resources. Therefore, the use of the above-mentioned scenarios for organizing agricultural production is linked to identifying the competitive directions for the development of the agro-food market.

1. *Ecological Vector* — The inertial and natural-innovative scenario for organizing agricultural production based on the use of various technologies without chemical food and agricultural products.
2. *Exotic Vector* — The use of intensive-technocratic and natural-innovative scenarios for organizing agricultural production, as the economic essence of economic activity is based on climate-specific agricultural products using various biochemical formulations for food protection and improvement.

In the long run, food production may decline, and insignificant income losses could occur, with the possibility of losses in agriculture, particularly in sectors such as potato farming.

The Intensive-Technocratic Scenario focuses on the technological construction of Western-style agricultural production, characterized by global chemicalization, the use of high-yield technologies, and intensive use of the latest scientific and technical developments. In agriculture, this involves establishing intensive orchards, applying intensive technologies in greenhouses on farms, and using exotic plant species in fisheries. For example, technologies that allow the extraction of 100 t of fish products per hectare of water surface and methods for effective poultry farming, including ostrich farming. However, agricultural production must remain closely aligned with its natural foundation, especially in the case of livestock. Although the intensive technological

development scenario helps increase production volumes and farmer incomes, it complicates the production of environmentally clean products.

Our republic has great potential and competitive advantages for the development of the Natural-Innovative Scenario. Local technologies allow for the production of high-quality (with minimal or no chemical usage) affordable products. This includes the potential for effective engagement in fruit and vine growing in the mountainous and foothill regions, as well as grazing livestock farming. Thus, the economic basis for the natural-innovative scenario is based on the use of natural farming methods and on simple and extended rotational farming aimed at maintaining and improving soil fertility.

5. Conclusion

In an innovative economy, the institutional characteristics and model of service relationships are crucial for the effective operation of agro-industrial complexes. In this system, the need to apply innovative technologies to improve service processes and their management model is growing day by day. The institutional characteristics of service relationships in agro-industrial complexes enable the provision of stable development, increased competitiveness, and improved production efficiency.

The development of services through innovative approaches, especially the introduction of information technologies, digital platforms, and automation processes, enhances the management system of agro-industrial complexes. Additionally, state policy, promoting competition, and integration in research and development (R&D) are key factors necessary for the successful implementation of this process. Overall, improving the institutional model of service relationships in agro-industrial complexes in the context of an innovative economy not only contributes to increasing their economic efficiency but also ensures their social and environmental sustainability. Therefore, the integration of innovative approaches, optimization of the service system, and implementation of effective management models are expected to lead to a brighter future for agro-industrial complexes.

REFERENCES

[1] P. O. Achard, "Strategic Management of Public–Private Partnerships: Actors, Aims, and Capabilities," in *Public Private Partnerships*, Springer International Publishing, 2019, pp. 261–280. doi: 10.1007/978-3-030-24600-6_13.

[2] G. Butko and O. Saparova, "Features of using human capital in agrarian sector of economy," *Agrarian Bulletin of the*, vol. 212, no. 09, pp. 73–79, Nov. 2021, doi: 10.32417/1997-4868-2021-212-09-73-79.

[3] B. Sultanov, T. Nurimbetov, S. Bayjanov, B. Seyilbekov, and A. Durmanov, "Trends in change and the current state of the effectiveness of land reclamation measures in agriculture," in *INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE "INNOVATIVE TECHNOLOGIES IN AGRICULTURE,"* AIP Publishing, 2023, p. 70001. doi: 10.1063/5.0165017.

[4] P. V Ivliev and S. N. Rybina, "Digital trends in the development of leasing legal relations in modern Russia," *Аграрное и земельное право*, no. 2, pp. 89–91, 2023, doi: 10.47643/1815-1329_2023_2_89.

[5] D. V Serdobintsev, E. A. Aleshina, and I. S. Novikov, "ORGANIZATIONAL AND ECONOMIC ASPECTS OF CLUSTERING OF RUSSIAN AGRICULTURAL," *Scientific Review Theory and Practice*, pp. 8–23, 2021, doi: 10.35679/2226-0226-2020-11-1-8-23.

[6] I. Dumanska, "PUBLIC-PRIVATE PARTNERSHIP IN FINANCING INNOVATIVE PROCESS OF AGRARIAN SECTOR UKRAINE," *European Cooperation*, vol. 8, no. 39, pp. 7–14, Sep. 2018, doi: 10.32070/ec.v8i39.32.

[7] A. Z. Yusupovich, "THEORETICAL ISSUES OF CONCEPTS RELATED TO THE ECONOMIC SECURITY OF SERVICE ENTERPRISES," *The American Journal of Social Science and Education Innovations*, vol. 04, no. 02, pp. 11–14, Feb. 2022, doi: 10.37547/tajssei/volume04issue02-03.

[8] B. Bull and D. McNeill, "From Business UNusual to Business as Usual: The Future Legitimacy of Public-Private Partnerships with Multilateral Organizations," in *Democracy and Public-Private Partnerships in Global Governance*, Palgrave Macmillan UK, 2010, pp. 103–121. doi: 10.1057/9780230283237_6.

[9] Z. J. K. O'G'Li, "Administrative Reforms In The Republic Of Uzbekistan: Some Problems And Prospects," *The American Journal of Political Science Law and Criminology*, vol. 02, no. 12, pp. 1–4, Dec. 2020, doi: 10.37547/tajpslc/volume02issue12-001.

[10] A. K. Alikulovich and Z. Tulkinova, "DEVELOPMENT STRATEGY OF NEW UZBEKISTAN FOR 2022-2026," *The American Journal of Social Science and Education Innovations*, vol. 05, no. 05, pp. 5–9, May 2023, doi: 10.37547/tajssei/volume05issue05-02.

[11] P.-L. Chang and H.-Y. Shih, "The innovation systems of Taiwan and China: a comparative analysis," *Technovation*, vol. 24, no. 7, pp. 529–539, Jul. 2004, doi: 10.1016/s0166-4972(02)00117-7.

[12] L. Xu, "Managing customer services: Customer knowledge management in service innovation," in *ICSSSM11*, IEEE, Jun. 2011, pp. 1–4. doi: 10.1109/icsssm.2011.5959325.

[13] K. Mäensivu, M. Toivonen, and K. Tammela, "Innovation with Effectuation: An Opportunity for the Public Sector," in *Innovating in Practice*, Springer International Publishing, 2016, pp. 179–202. doi: 10.1007/978-3-319-43380-6_9.

[14] B. Dachs, O. M. Pineda, I. Wanzenböck, and J. Gallego, "From market and systemic failures to an integrative approach for ServPPINs," in *Public–Private Innovation Networks in Services*, Edward Elgar Publishing, 2013. doi: 10.4337/9781781002667.00025.

[15] M. N. DUDIN, D. D. BURKALTSEVA, S. Y. TSOHLA, I. N. VORONIN, A. A. YANOVSKAYA, and O. A. GUK, "Peculiarities of Sustainable Tourism Development in the Russian Federation," *Journal of Environmental Management and Tourism*, vol. 8, no. 8, p. 1559, Dec. 2017, doi: 10.14505/jemt.v8.8(24).12.

[16] R. M. LEO and J. TELLO-GAMARRA, "DRIVERS OF SERVICE INNOVATION: PROPOSAL OF A THEORETICAL MODEL," *RAM. Revista de Administração Mackenzie*, vol. 21, no. 3, 2020, doi: 10.1590/1678-6971/eramr200143.

[17] P. Wood, "A service-informed approach to regional innovation – or adaptation?," *The Service Industries Journal*, vol. 25, no. 4, pp. 429–445, Jun. 2005, doi: 10.1080/02642060500092063.