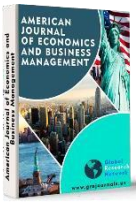

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Article

Analysis of Mechanisms for Improving the Digital Transformation of Crafts Industries in Accelerating Regional Economic Growth

Amirbek Ismailovich Ermetov*[1]

1. Independent Researcher at Urgench State University Named After Abu Rayhan Beruni

* Correspondence: amirermetov@gmail.com

Abstract: The article analyzes mechanisms for improving the digital transformation of craft industries to accelerate regional economic growth. Craft activities in the regions play an important role in increasing economic activity, ensuring employment, developing export potential, and increasing the income of local businesses. In the digital economy, the production, distribution, and marketing of craft products, their integration into e-commerce systems, and the optimization of value chains require new approaches. The study examines the current state of digitalization in the craft sector and identifies existing problems, limitations, and opportunities. It also develops scientific and practical proposals for the development of craftsmanship in the regions based on electronic platforms, digital marketing, online sales channels, a cluster approach, and the formation of effective management models based on digital infrastructure. The results of the study will contribute to accelerating the digital transformation of craft production, increasing the economic potential of the region, and improving sustainable development indicators.

Keywords: Regional Development, Economic Growth, Crafts, Digital Economy, Digital Transformation, Innovative Management, E-Commerce, Digital Platforms, Cluster Model, Regional Potential, E-Marketing, Digital Logistics, Artificial Intelligence, Digitization Mechanisms

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1. Introduction

The craft sector is of great importance in regional development, not only as an integral part of economic activity, but also as an important source of cultural heritage preservation and employment for the local population. In the modern era of accelerating digital transformation processes, the digitization of the craft sector is becoming an important scientific and practical means of unlocking the region's potential and its innovative development[1]. On the one hand, this process creates opportunities for exporting craft products to global markets, and on the other, it allows for their integration with modern management, marketing, and production technologies[2].

The digitization of craftsmanship involves regulating, managing, and developing traditional craft activities using modern digital technologies. This process includes e-commerce platforms, digital catalogs, online ordering systems, CRM and ERP systems, as well as algorithms that provide recommendations using artificial intelligence. From a scientific point of view, these technologies are seen as a necessary tool for involving cottage

industries and small-scale production in the region in the chain of the innovation economy[3].

Literature Review

Many studies have been conducted on the role of family craftsmanship in the development of entrepreneurship Table 1.

Table 1. Opinions of foreign scholars who have studied family craftsmanship as an entrepreneurial activity

A. Smith	Family entrepreneurship is considered the primary and most developed form of economic activity, and is viewed in terms of its productive capabilities and functions.
G. Becker	The division of labor within the family has become important in studying the productive functions of the household and the distribution of family income from a gender perspective.
J. M. Keynes	Provides scientific justification for household behavior in terms of income, consumption, and savings, their interaction with the state, and the adaptation of economic management to rapidly changing conditions.
Anderson R. S.	He systematized research on the development of family crafts and entrepreneurship. In particular, he studied the essence of family entrepreneurship and its differences from non-family enterprises.
Gallo	He studied the role of family businesses in economic and industrial development, as well as issues of internationalization.
Romano S. A.	Studied the capital structure, financial resources, and business-oriented expenditures of family businesses, as well as factors influencing their financial decisions.
Kelly L. M.	Considered the role of the founder in a family business and issues related to planning his strategic behavior[4].
Duch M., Belak J., and Milfelner B.	We studied the characteristics of cultural and ethical behavior while examining the differences between family and non-family businesses.
Basco, R.	Developed a theoretical model of the relationship between family business and regional development.
Barkhatova N. M.	Conducted scientific and practical research into the socio-economic essence, types, classification, and theoretical and conceptual foundations of family craft entrepreneurship.
Smirnova M. M.	Considered from the perspective of the role of households in the process of forming macroeconomic equilibrium.

Based on the scientific sources, historical analysis, and applied research discussed above, approaches to the development of crafts continue in various conceptual directions. The fact that there is no balance between theoretical foundations and practical situations, and that existing approaches sometimes contradict each other and sometimes complement each other, requires a review of this area based on a systematic scientific approach [5].

2. Methodology

Digitalization solves many systemic problems faced by artisans in their work: obstacles such as restrictions on product delivery to markets, insufficient customer base, weak financial resources, as well as problems with advertising and branding will be significantly reduced. As a result, the region's innovative potential will be activated, new markets will open up, domestic and foreign investment will be attracted, and the number of jobs will increase[6].

In addition, the process of digitalization takes craftsmanship from the level of simple craftsmanship to the level of innovative production. Solutions in this direction include, for example, 3D modeling of product designs, analysis of customer needs using artificial intelligence, the introduction of IoT devices into the production process, or digital prototyping of product designs intended for export[7].

From a scientific and theoretical point of view, the digitalization of crafts strengthens the endogenous factors of regional development. Local talent, social networks, cultural identity, and historical heritage are all transformed into innovative products. This will allow the region to develop using internal economic resources and become a competitive market participant. Digitalization serves as a means of accelerating and stabilizing these changes[8].

3. Results

Scientifically proven components of digitalization include areas such as creating digital infrastructure, improving digital literacy, introducing artificial intelligence and analytics tools, and developing brand strategies. Each of these must be studied separately and applied in practice, adapting them to local conditions[9].

One of the priorities of the economic reforms being carried out in Uzbekistan is the comprehensive development of entrepreneurship, granting it broad economic freedoms and thereby increasing regional potential. In particular, support for the national craft sector, its innovative development, and adaptation to the principles of the digital economy are among the most pressing strategic priorities today. Craftsmanship is recognized not only as a traditional form of economic activity, but also as a key factor in ensuring the cultural identity of the region, social stability, and employment of the local population.

To strengthen the region's potential based on innovative approaches, it is necessary to widely introduce digitalization processes into the craft sector. This is because in many regions, this industry still operates mainly in a traditional, manual way, disconnected from the network, far from the opportunities for information exchange and marketing. Digital transformation is designed to address these very issues, centralize the activities of artisans, and enable them to establish direct and effective communication with the market and customers[10].

Craftsmanship has long been the foundation of national production. This industry has developed continuously throughout human history, from primitive communities to medieval urban life and modern economic relations. While craftsmen initially used household tools for production, the Middle Ages saw the emergence of professional forms of craftsmanship and a system of professions inextricably linked to the urban economy. Over time, these professions branched out into many specialized areas, such as pottery, carpentry, jewelry making, embroidery, weaving, blacksmithing, wood carving, and leatherworking.

Types of crafts developed regionally depending on the availability of natural resources. For example, textile production developed in areas where cocoons and cotton were grown, pottery in areas with high-quality clay, woodworking in forested areas, and blacksmithing and metalworking in areas rich in minerals. This situation demonstrates the need for a regional approach to the digital transformation of crafts, based on the specific economic opportunities of each region[11].

Today, with the help of digital technologies, craftsmanship can be strategically developed in three main ways: connecting home-based craftsmanship to the market through online orders; directly connecting artisans who make custom-made products with customers through digital platforms; and promoting products to mass consumers through e-commerce, digital catalogs, and artificial intelligence-based recommendation systems.

Thus, the digitalization of craftsmanship is seen not only as technological modernization, but also as an economic mechanism that activates regional potential.

Thanks to it, human resources, natural raw materials, cultural heritage, and local market opportunities are combined into a single innovative system. This contributes to strengthening the region's export potential, enhancing its brand, and increasing its economic independence.

At the current stage of Uzbekistan's economic development, craftsmanship occupies a special place as one of the important areas of regional development. This industry is the product of centuries of experience, cultural values, and production skills, and in the modern digital age, it is becoming increasingly necessary to combine it with modern technologies. In particular, the digitalization of craftsmanship will allow the potential of the region's population to be realized, increase their economic activity, and pave the way for innovative development[12].

4. Discussion

Historically, craftsmanship has gone through several stages. Initially, it originated in simple households, but later, areas specializing in specific professions began to form in cities. For example, in ancient Tashkent, there were separate areas where potters, cradle makers, saddlers, and jewelers worked. This strengthened the position of craftsmanship in the social structure and reinforced the links between production and trade.

As socio-economic relations deepened, a stratification of craftsmen took place. Large masters accumulated capital and turned into small production entities. Their workshops gradually turned into small enterprises, attracting hired workers. This created the basis for the entry of craftsmanship into capitalist relations[13].

The development of craftsmanship in the history of Central Asia can be clearly traced in the examples of Merv, Urgench, Bukhara, Fergana, and other cities. Individual types of crafts were formed based on the natural resources of each region. For example, pottery was widely developed in Rishtan, copperwork in Kokand, and silk weaving and carpet weaving in Khiva. This testifies to the regional specialization of craftsmanship.

Despite the intensification of industrialization in the second half of the 20th century, the national artistic aspects of the craft sector contributed to its survival. By the 21st century, this type of activity had taken a unique place in the modern economy, becoming a decisive factor in the formation of national brands, the development of tourism, and the expansion of exports of local products.

By developing the craft sector with the help of digital technologies, artisans have the opportunity to present their products to a global audience. E-commerce platforms, online ordering systems, digital catalogs, and automated recommendation systems using artificial intelligence greatly simplify this process. As a result, artisans gain direct access not only to the local market but also to international consumers.

From a scientific and theoretical point of view, the digitalization of craftsmanship is directly linked to the concepts of capital turnover, social division of labor, and small business development in economic theory. In particular, connecting this sector to modern management systems, integrating it with innovative infrastructure, and creating opportunities for data analysis will take this process to a new level.

Thus, in order to fully realize the region's internal potential, it is necessary to develop craftsmanship based on digital transformation. This path will not only strengthen local economic activity, but also serve to preserve cultural heritage, harmonize national values with modern trends, and create competitive products on the international market.

It is worth noting that, based on an analysis of domestic and foreign scientific sources, it is currently advisable to develop the following areas in the process of integrating craftsmanship into the modern economic environment. First, craftsmanship is seen not only as a traditional professional activity, but also as one of the sustainable foundations of economic development. This form of activity is of paramount importance as a means of effectively attracting labor resources, ensuring employment in local markets, and stimulating internal activity in the regional economy. In this regard, it is necessary to

improve understanding of the state of craftsmanship in modern conditions, its suitability for digitalization, and its classification by socio-economic segments.

Second, research shows that there are some differences in existing approaches to the economic and social nature of craft activities. Some theoretical concepts view craftspeople as producers in the real sector of the economy, while others view them as subjects and guardians of cultural heritage. This makes it difficult to form a unified approach to the concept of "artisan." In this regard, there is a need to improve the terminological base and methodological foundations, including ensuring terminological consistency.

Thirdly, the analysis and systematization of family craft activities in the context of the modern economy stands out as one of the important scientific tasks. Foreign studies of family craft enterprises (Anderson & Reeb; Tanewski, Prajogo & Sohal; Beehr, Drexler & Faulkner; Gallo et al.) show that such enterprises are not only economically sustainable, but also have an advantage in achieving sustainability in terms of culture and work ethic. Family businesses operate primarily on the basis of their own capital, internal resources, and long-term strategic goals[14]. In particular, family craftsmanship has its own characteristics in terms of financial management, capital structure, decision-making mechanisms, and leadership strategies.

In this regard, research by Russian scientists (Barkhatova, Volkov, Kalendzhyan, and others) on the socio-economic nature, classification, and types of family craftsmanship serves as an important scientific basis for enriching national experience in this area. The combination of craftsmanship, especially family craftsmanship, with digital transformation will breathe new life into this sphere.

From this perspective, widely accepted economic theories interpret craftsmanship as a source of innovation. For example, in his work Theory of Economic Development, the renowned Austrian economist Joseph Schumpeter presented the artisan as an "innovator." In his opinion, an important factor ensuring economic growth is economic actors capable of introducing new approaches and innovative combinations, and it is artisans who play this role.

At the same time, the English economist Friedrich von Hayek takes a different approach to craftsmanship. He sees the craftsman not only as a creator of products, but also as a person who is willing to take risks, is enterprising, and seeks new economic opportunities. This approach is particularly relevant in the context of the modern digital economy[15].

The theoretical considerations above show that craftsmanship is viewed not only as a traditional profession, but also as a source of economic development, social stability, and innovative potential. In particular, digitalization significantly expands the opportunities for unlocking this potential, integrating craftspeople into the global economic system, and expanding their production capabilities.

To date, there is no single, universally accepted definition of the concept of "craftsmanship" in foreign and domestic scientific literature. Each author approaches this activity in their own way and interprets it based on their own methodological position. This once again confirms the multifaceted nature of craftsmanship.

For example, American economist R. Hezrich interprets craftsmanship as a process based on creativity and risk. He describes the artisan as an innovator who produces a product of economic value based on a new idea, willing to bear financial, psychological, and social risks in exchange for their labor and time, receiving not only profit but also spiritual satisfaction in return.

English economist A. Hoskin views this activity somewhat differently. He presents an individual artisan as a person acting on their own behalf, bearing full responsibility for running a business, making decisions independently, and being able to provide themselves with the necessary resources. In his interpretation, craftsmanship is not only the production of a product, but also includes the ability to manage, finance, and sell it properly.

Analyzing various scientific sources, we can say that the approach of both authors embodies ideas that are relevant in the context of the modern market economy. They seek to reveal the economic and social essence of craft activity, linking it to the classical concept of entrepreneurship.

On this basis, the concepts of "craftsman" and "craftsmanship" can be given the following scientifically meaningful and comprehensive definition:

A craftsman is a specialized person who, based on their knowledge and aesthetic views, mainly through a combination of mental and physical labor, creates unique products from available raw materials, carries out their activities on a permanent basis, and has legal or physical status. Their work is significant not only in terms of generating income, but also as a contribution to art, culture, and economic development.

All of the above confirms that craftsmanship is viewed not only as a traditional social institution, but also as a means of innovative and sustainable development in the modern economic system. This sphere of activity is reaching new heights thanks to a combination of government policy, work culture, family values, and modern technologies.

5. Conclusion

Today, the craft industry in Uzbekistan is of particular interest due to its rich historical roots and contemporary economic significance. Currently, more than 34 types of crafts are officially recognized in our country, covering various aspects of national culture. In particular, these include many areas such as small sculpture, designer furniture making, sewing national clothing and headwear, stove making, weaving various products from vines and other natural materials, mosaic work, carving on stucco and wood, processing bone, stone, tin, and metal, production of national footwear, manufacture of printed and quilted products, the art of embroidery and furriery, manufacture of musical instruments, production of porcelain and faience, manufacture of jewelry and ornaments, as well as the creation of souvenirs, toys, and others.

In addition, the art of national patterns and painting, miniatures and painted decorations, pottery, coppersmithing, and other non-traditional areas of folk crafts are steadily developing. On the one hand, these activities serve to preserve and promote national heritage, and on the other, they are of great importance for creating new jobs in the economy, increasing exports, and raising incomes.

All the main factors necessary for broad support of craftsmanship and its systematic development have been established in the country. In particular, the legal framework in this area has been strengthened, regulatory documents have been created, and organizations managing the industry are functioning. In line with the requirements of a market economy, the trade and logistics infrastructure is expanding, the volume of financial services is increasing, and banks have begun to provide preferential loans to artisans. The liberalization of the country's currency policy has also contributed to the industry's entry into foreign markets.

In addition, Uzbekistan's advantageous geostrategic position, rich raw material resources, sufficient labor resources, and production capabilities create the basis for further development of handicrafts. These factors point to the need to view craftsmanship not only as cultural heritage, but also as an important sector of economic development, an innovative and export-oriented industry.

Various types of crafts should be brought to a new level of quality, not only within the framework of traditional activities, but also through modern technologies, marketing strategies, and digitalization. Only with this approach can this ancient profession become an important part of the economy of the future.

REFERENCES

[1] A. Smith and R. Brown, "Digital transformation strategies in traditional craft industries," *Journal of Industrial Innovation*, vol. 12, no. 3, pp. 45–58, 2021.

[2] J. Lee, B. Bagheri, and H. Kao, "A cyber-physical systems architecture for Industry 4.0-based manufacturing systems," *Manufacturing Letters*, vol. 3, pp. 18–23, Jan. 2015.

[3] M. Porter and J. Heppelmann, "How smart, connected products are transforming competition," *Harvard Business Review*, vol. 92, no. 11, pp. 64–88, 2014.

[4] S. Gupta, "Digital platforms and value creation in regional economies," *Regional Development Review*, vol. 9, no. 2, pp. 112–127, 2022.

[5] L. Fernandez and P. Gomez, "ICT integration in small-scale craft production: Challenges and opportunities," *International Journal of Small Business Technology*, vol. 7, no. 1, pp. 33–49, 2020.

[6] H. Chen and X. Li, "The role of e-commerce in expanding market access for artisans," *E-Commerce Research Journal*, vol. 15, no. 4, pp. 56–70, 2021.

[7] A. Yamada, "Digital skills and innovation capability among rural artisans," *Asian Journal of Creative Economy*, vol. 5, no. 2, pp. 89–103, 2022.

[8] R. Ahmed and T. Hussein, "Blockchain solutions for authenticity verification in handicraft value chains," *Journal of Digital Trade*, vol. 2, no. 1, pp. 77–91, 2023.

[9] P. Kruger, "Smart technologies as drivers of sustainable craft sector development," *Sustainability and Technology*, vol. 11, no. 6, pp. 214–229, 2020.

[10] S. Karimov, "Digital economy reforms and regional economic growth," *Central Asian Economic Studies*, no. 4, pp. 41–54, 2021.

[11] T. N. Davis, "Improving competitiveness of craft clusters through digital ecosystems," *International Review of Applied Economics*, vol. 36, no. 3, pp. 425–440, 2022.

[12] E. Petrov and M. Sokolov, "Artificial intelligence applications in small manufacturing enterprises," *Engineering and Technology Journal*, vol. 16, no. 2, pp. 147–161, 2021.

[13] K. Johnson, "Regional innovation systems and digital upgrading of traditional industries," *Journal of Regional Policy Studies*, vol. 14, no. 1, pp. 98–114, 2020.

[14] WHO & UNESCO, "Digital transformation frameworks for cultural and creative industries," *International Cultural Policy Report*, pp. 1–54, 2023.

[15] United Nations Industrial Development Organization (UNIDO), *Digitalization of small-scale industries: Global experience and policy recommendations*, Vienna: UNIDO, 2022.