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«PROSPECTS FOR THE DEVELOPMENT OF SERVICE  
INDUSTRIES»

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**ECONOMICAL SCIENCES****PROSPECTS FOR THE DEVELOPMENT OF SERVICE INDUSTRIES****BEKMIRZAYEV MIRZOHI**PhD of Namangan Institute of Engineering and Technology  
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**Abstract:**

**Objective.** In this article, the development of the service industry in the conditions of ensuring economic stability, increasing its importance, the economic analysis of the activity of the service industry today, and the further development of the service network in the future are described in detail. Service sector - part of the economy, which includes all types of commercial and non-commercial services; a consolidated general category that includes the reproduction of various types of services provided by enterprises, organizations, and individuals. It is customary to include culture, education, health care, and consumer services in the service sector. The service sector is often referred to as a post-industrial economic structure due to their well-developed modern infrastructure. It is the service sector that, in economically developed countries, makes up the bulk of the economy in terms of the number of employees. The service sector includes: the service sector (infrastructure services for the production and service sectors of the economy) and the social sector (services for the non-production and legal and financial sectors of the economy).

**Methods.** The research consists of further development of service industries in our country, identification of factors affecting their sustainable development, development of scientific and practical proposals and recommendations based on the study of the experience of foreign countries on sustainable economic development.

**Results.** In our country, the rapid development of the service sector, as in all other sectors, is a constant focus. In our country, in particular, in the Namangan region, a number of necessary measures aimed at the development of the service sector are being implemented and sufficient conditions are being created.

In the period 2017-2021, the total volume of services in Namangan region increased by 1.6 times, and services per capita increased from 1896.0 million soums in 2017 to 2451.7 million soums by 2021. In particular, financial services saw 4.8 times higher growth rates, transport services 1.8 times, and educational services 2.5 times higher.

Last year, 1,424 legal entities were registered in the field of services in Namangan region, which made up 23.2 percent of the total number of registered legal entities. 8506.7 trillion in the service sector in 2017-2021. 33,950 new jobs were created in return for the implementation of 1,404 projects worth 1,404 soums, and the number of investment projects increased 10 times. By 2026, the volume of services is expected to increase by 2.5 times in real terms.

**Conclusion.** In order to further develop the service sector in the future, it is appropriate to implement a number of measures, in this regard, it is necessary to further strengthen the activity of entrepreneurs in the service sector, create the necessary conditions, attract young people from among the graduates of vocational colleges and higher education institutions to family business entities.

**Keywords:** service sector, service sector, social sector, digital economy, increasing the role of services in the national economy, the service sector market.

**Introduction.** Using the term "service sector", which is very widely used in many publications (both scientific and journalistic), the authors put different meanings into it, interpret it with varying degrees of breadth and detail. This is largely due to the fact that the phenomenon of the service sector in a fairly holistic, systemic, more or less mature form was formed and began to play its role relatively

recently. Therefore, theoretical economists engaged in a thorough study of the service sector only in the second half of the 20th century. In Western countries, this happened in the 60-70s of the XX century, in our country, formally, also during this period, although from the standpoint of a command economy, but real, vital, practical (scientific and practical) interest began to appear and intensify only in recent years. decade of the twentieth century, when the realization of the importance and complexity of this sphere of social production came. Research is carried out both at the deep level and in applied terms, and the applied direction is still more advanced (especially in the framework of marketing), and the least developed is the direction of economic theory.

**Methods.** The research consists of further development of service sectors in our country, identification of factors affecting their sustainable development, development of scientific and practical proposals and recommendations based on the study of the experience of foreign countries on sustainable economic development.

Specific characteristics and initial aspects of the services market were studied by foreign scientists: A. Smith, D. Ricardo, J.B. Sey and other economists, as well as local scientists it was studied by Sh. Shodmonov, B.A. Abdukarimov, J. Bobonazarova, Sh. Kuvandikov, Y. Aliev, etc.

**Results.** One of the most important patterns of economic development throughout the world is the relationship between economic growth and the increasing role of services in the national economy. This finds expression in an increase in the share of labor, material and financial resources used in the service sector.

With the development of society, the growth of productive forces, a certain development of the service sector market takes place. There is an increase in employment in this area, an increase in the

technical equipment of labor, the introduction of more and more advanced technologies. At present, the role of services, as one of the most important sectors of the economy, is very large and relevant. This is due to the complication of production, the saturation of the market with goods of both everyday and individual demand, with the rapid growth of scientific and technological progress, which leads to innovations in the life of society. All this is impossible without the existence of information, financial, transport, insurance and other service markets.

At present, the role of the services market, as one of the most important sectors of the economy, is very large and relevant. This is due to the increasing complexity of production, the saturation of the market with new products, and the rapid growth of scientific and technological progress. All this is impossible without the existence of information, financial, insurance and other service markets. There is an expansion of the bases for the reproduction of market and non-market services, and market ones are winning an increasingly significant share for themselves in the total volume of services. This is due to the trade in goods (especially technically complex ones), since the sale of goods requires an increasingly developed network, which consists mainly of services provided during the sale and, after-sales services. The increase in demand for various types of services is explained by the influence of a number of factors. Services are purchased by both individuals and organizations. In the first case, they are called consumer, in the second - industrial.

Reasons for the rise in consumer services:

1. The growth of the welfare of the population. Under the influence of this reason, the desire of consumers to facilitate such routine work as cleaning,

cooking, washing, etc. has increased, which has led to the flourishing of the service market.

2. The emergence of free time due to the reduction of the working week in many countries of Western Europe and the USA.

This factor has led to an increase in demand for leisure and sports related services. There was a problem of free time. As a result, various interest clubs arose, studying at various schools.

3. The growth and use of high-tech products in the home (computers, video equipment, mobile communications, etc.) has led to an increase in the need for specialist installation and maintenance services.

4. The development of the market and market relations increases the need for companies in consulting services (market research, marketing developments, audit, etc.)

5. The complication of technology has led to the emergence of engineering services, i.e. technical services and technical advice. Engineering (English engineer - to design, build) - the provision of industrial, commercial, scientific and technical services by specialized engineering and consulting firms.

6. Increased competition. To remain competitive, industrial companies are forced to cut fixed costs. It is economically more profitable to buy a ready-made service, rather than incur additional costs associated with the independent implementation of narrow specialized tasks. Companies are willing to buy services because it avoids additional investment in their fixed assets and thus maintains their flexibility. For example, services for incoming control of raw materials, complex instrumental control of products.

7. More and more companies tend to concentrate their activities in highly specialized areas. Therefore, they

abandon auxiliary activities such as warehousing, transportation, packaging, etc. Firms reduce their activities in such unusual areas as capital construction (departments of capital construction), transport and repair of equipment, etc.

Foreign experience shows that tourism plays an important role in the economic development of the country. The share of tourism in GDP in Uzbekistan is about 2.5 percent. In developed countries with a large tourism sector, this figure is up to 10 percent, in island and developing countries, the share of tourism is from 30 to 50 percent. Tourism accounts for 8 percent of world exports of goods and services. In 83 WTO member countries, tourism is among the top five export sectors, while in 38 percent of the world's countries it is the main source of foreign exchange earnings. In addition, in countries where tourism is considered an important part of income, it has become the main area of employment.

According to the WTO, in the third millennium, the demand for tourism products that provide the most satisfaction in the shortest period of time will be high. Uzbekistan has all the necessary resources for the development of tourism: monuments of ancient historical architecture and oral art of the people, reserves, natural landscapes, etc. The concept of the Development Strategy of Uzbekistan until 2035 is expected to increase the share of tourism in GDP from 1.4 to 28 percent.

In the field of improving the activities of economic entities, it is necessary to pay special attention to the economies of scale and the development of private entrepreneurship in this area.

The expansion of the scale of production makes it possible to use advanced technologies and high-quality high-tech equipment. As the scale of production increases, it becomes possible to take advantage of specialization in

production and management, which leads to higher incomes in the industry, the creation of additional jobs and higher wages for workers in the industry.

**Discussion.** The following measures are expected to be implemented to ensure stable growth rates in the service sector:

1. Activities in the social sphere. In doing so, after studying the activities of existing schools and pre-school education, health care and cultural and sports institutions in the region, the scope of providing social services to the population will be doubled by involving the private sector in unused vacant buildings and structures and land areas.

2. Development of tourism services. According to this, Chodak ecotourism cluster was established in the territory of Pop district, and this complex is aimed at providing high-quality and diverse services to tourists, increasing the flow of tourists, and providing employment to local residents. This cluster includes camping and glamping, alpinism and trekking, horse riding and mountain excursions, family guesthouses, tourism information center and tourism information indicators. As a result, the number of tourists visiting will increase from 150,000 to 250,000, 450 new jobs, 50, Service volumes of 0 billion soums and an average of 10.0 billion soums of receipts to the local budget are expected.

In addition, in the territory of the Nanay village of the Yangikurgan district, the establishment of recreation centers and an ecotourism cluster has been started, thereby increasing the flow of tourists to the region.

In particular, the number of facilities serving tourists will be brought to the level of demand, taking into account the demands and visits of tourists over the years. In this case, accommodation for tourists will be organized in hotels, guest houses, increasing the number of tour operators, expanding the activities of tourist information centers, increasing Wi-Fi internet zones.

Through this, the number of tourists visiting the region is 1.7 million. from 7.4 million people, it is planned to increase the export of tourism services from 5.4 million dollars to 65.0 million dollars.

3. Construction of large trade and service facilities in cities and districts, expansion of activities of markets and amusement parks. In this regard, establishment of a culture and recreation park by "Namangan Independence Park" LLC in Namangan city, establishment of hotels by "Merrymed farm" LLC and "Istiqlol Javakhiri" LLC in Namangan city, organization of logistics center by "J-United Group" LLC in Namangan district, establishment of a jewelry center by "GAVHAR JEWEL GROUP" enterprise in Namangan city, establishment of a shopping complex by "AMINJON OTA NURIDDINOV FARMERS' MARKET" LLC in Namangan district, establishment of a shopping complex and showroom by "ART SOFT TOWER" LLC in Namangan city. Also, establishment of a medical hospital by "Hurriyat Sevinch Medical Center" LLC in Uchkurgan district, establishment of a diagnostic center of "Shodlik Med Servis" LLC in Uchkurgan district, establishment of a modern medical center by "Merrymed farm" LLC in Namangan city, "Namangan Premium Invest" in Namangan city "Namangan Square residential complex will be established by LLC, "Namangan Outstanding Square" complex will be established by "Namangan Qianxing Investment" LLC in Namangan, and a sanatorium and health center will be established by "Al Hamdani group" LLC in Chortoq district.

**Conclusion.** In order to develop the services sector in the future, it is appropriate to implement the following measures:

- Achieving a fundamental change in the composition of the provided services at the expense of modern high-tech types;
- Development of service enterprises in rural settlements;

- increasing attention to communal and household, housing repair and construction, preparation of agricultural products;
- Creation of necessary conditions for strengthening the activity of entrepreneurs in the field of service provision, attracting young people from among graduates of vocational colleges and higher educational institutions to family business entities;

- Rapid development of new promising types of consulting, banking, finance, insurance, leasing and evaluation services, which are in high demand among the population;
- Pay special attention to the training, retraining and upgrading of the personnel working in the service sector.

### References

1. Сидоров А.А. Развитие сферы услуг в условиях цифровой трансформации национальной экономики // Теоретическая и прикладная экономика. 2021. № 1. – С. 39 - 47.
2. N.X.Xalilov, N.T.Safina. "The need to include gamification elements in the educational process". JournalNX - a Multidisciplinary Peer Reviewed Journal. (ISSN No.(E):2581-4230) Maharashtra India. 2021.
3. Adashaliyevich, B. M., & O'g'li, I. M. (2022). Promoting sustainable development of small business. Asian Journal of Research in Business Economics and Management, 12(4), 5-9.
4. Бекмирзаев, М. А., & Холиков, Ж. Т. У. (2022). Важность развития сферы услуг в Республике Узбекистан. In Colloquium-journal (No. 4 (127), pp. 18-21). Голопристанський міськрайонний центр зайнятості.
5. М. Бекмирзаев. (2022). Тадбиркорликни ривожлантириш асосида камбағаллик даражасини камайтириш йўналишлари. Архив научных исследований, 2(1). [извлечено от http://journal.tsue.uz/index.php/archive/article/view/2105](http://journal.tsue.uz/index.php/archive/article/view/2105)
6. Adashaliyevich, B. M., & Gaybullajon o'g'li, I. M. (2023). Main directions of sustainable development of small business and private entrepreneurship. Scientific approach to the modern education system, 2(13), 107-112.
7. Adashaliyevich, B. M., & Toxirovich, M. B. (2023). Small business and private entrepreneurship-development guarantee. Innovative achievements in science 2022, 2(16), 73-78.
8. Adashaliyevich, B. M., & Abdurahimkhoja o'g'li, A. A. (2023, February). Ways of innovative development of the activities of small business and private business subjects. In International scientific research conference (Vol. 1, No. 11, pp. 90-95).
9. Toxirjon o'g'li, H. J., & Adashaliyevich, B. M. (2023). Prospects for development of the services field. Innovation in the modern education system, 3(27), 274-279.
10. Хайталиев, О., & Бекмирзаев, М. (2023). Иқтисодийни глобаллашуви шароитида камбағаллик муаммосини камайтиришнинг ҳудудий жиҳатлари. O'zbekistonda fanlararo innovatsiyalar va ilmiy tadqiqotlar jurnali, 2(16), 597-602.

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