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Economic Potential and Development Prospects of Samarkand's Tourism Industry

TOURISM AS A DRIVER OF REGIONAL ECONOMY

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Abstract

This article examines the economic development of tourism in Samarkand. An analysis is carried out of the current state of tourism infrastructure, statistical indicators of visitor flows and tourism revenues for the period 2019–2024. The principal challenges facing the industry are identified: seasonality of demand, insufficient diversification of tourism products, limited transport accessibility and a shortage of qualified personnel. The study employs methods of statistical analysis, comparative analysis, SWOT analysis and the TOWS matrix. In addition, quantitative forecasting of tourist flows for the period 2025–2030 is undertaken using a trend-based model. Specific recommendations are proposed for enhancing the competitiveness of Samarkand on the international tourism market.

Keywords: tourism, regional economy, Samarkand, sustainable development, tourism infrastructure, economic potential, TOWS analysis, multiplier effect, forecasting.

1. INTRODUCTION

Samarkand is one of the most ancient cities in the world, with a history exceeding 2,750 years, the status of a UNESCO World Heritage Site and the position of cultural capital of the Turkic world — all of which make it one of the most attractive tourist destinations in Central Asia. Tourism accounts for approximately 3.5–7% of the GDP of Uzbekistan (according to WTTC data), and the development of this industry constitutes a strategic priority of the state. However, behind the grandeur of the architectural monuments lies a complex economic reality: the development of tourism in Samarkand is far from realising its full potential.

International experience demonstrates that cities with rich cultural heritage are capable of generating substantial economic effects, provided that a systemic approach is adopted to the development of tourism infrastructure. Granada (Spain), with a population of 230 thousand, hosts more than 6.7 million tourists annually, contributing 14% to provincial GDP. Isfahan (Iran) attracts approximately 5.9 million visitors per year, supporting a tourism sector valued at more than USD 11 billion. Samarkand, possessing comparable historical and cultural potential, has not yet attained equivalent levels of economic performance, which underlines the relevance of a comprehensive study of the causes of this gap and the means of bridging it.

In the contemporary world, tourism is ceasing to be merely a service sector — it is becoming a powerful instrument of economic development, generating employment, stimulating the growth of related industries (transport, trade, agriculture, handicrafts) and attracting foreign currency. The Presidential Decree “On measures to develop tourism in the Republic of Uzbekistan” (2018, No. UP-5307) and the subsequent state programmes demonstrate the government’s commitment to this direction [1].

Samarkand, as the country’s second-largest city and the principal tourism jewel of Uzbekistan, ought to serve as the locomotive of these changes. In practice, however, the actual economic benefits derived from tourism growth remain modest. Accordingly, the present study aims to provide a comprehensive assessment of the economic potential of Samarkand’s tourism industry, to identify key problems and to develop practical recommendations for addressing them.

The aim of this article is to provide a comprehensive assessment of the economic potential of Samarkand’s tourism industry, to identify key problems and to develop practical recommendations for enhancing the economic effectiveness of tourism. The achievement of this

aim requires an interdisciplinary approach combining methods of economic analysis, strategic planning and quantitative forecasting.

The objectives of the study are as follows:

1. To analyse the dynamics of tourism development in Samarkand for the period 2019–2024.
2. To assess the current state of the city's tourism infrastructure.
3. To identify the principal problems and constraints of the industry.
4. To develop strategic recommendations on the basis of a TOWS matrix.
5. To carry out quantitative forecasting of tourist flows for the period 2025–2030.

2. LITERATURE REVIEW

A number of scholarly works by both domestic and foreign authors are devoted to the problems of tourism development in Uzbekistan and Samarkand.

The theoretical foundations of tourism economics are set out in the works of Yu. V. Kratko (Economics of Tourism, 2019), A. D. Chudnovsky (Economics of the Tourism Industry, 2020), as well as in the writings of foreign scholars — A. Williams (Tourism: Principles and Practice, 2018) and S. Williams (Tourism and Tourism Spaces, 2019) [2, 3, 4, 5]. These authors regard tourism as a multifunctional industry that generates a multiplier effect within the economy. Kratko emphasises that tourism acts as a catalyst for the development of related industries, creating a multi-level structure of economic impact ranging from direct to induced effects. Chudnovsky details the mechanisms of formation of the tourism product and the specific features of pricing within the hospitality industry.

The specific features of tourism in Uzbekistan are addressed in the works of M. A. Tadjiev (Tourism in Uzbekistan: Problems and Prospects, 2021), as well as in publications by local scholars — I. Kh. Khasanov and A. R. Islamov (The Tourism Potential of Samarkand: Assessment and Directions for Development, 2023) [6, 7]. The authors note the considerable potential of the country, but point to insufficient development of infrastructure, marketing and human resources. Tadjiev places particular emphasis on the necessity of diversifying the tourism product and developing human capital within the industry. Khasanov and Islamov undertook a comprehensive assessment of the tourism potential of Samarkand, identifying the gap between the resources available and their economic utilisation.

The international dimension is examined in the works of the World Tourism Organization (UNWTO). The reports UNWTO World Tourism Barometer (2023) and UNWTO Tourism Highlights (2024) record the full recovery of international tourism following the COVID-19 pandemic and underline the role of digital technologies in industry development [8, 9]. According to UNWTO data, in 2024 the number of international tourists reached 1.4 billion, an 11% increase on 2023. The Organization forecasts further growth of 3–5% in 2025, with particular attention drawn to the dynamics of emerging markets, including Central Asia.

The World Travel and Tourism Council (WTTC) report indicates that the total contribution of tourism to the GDP of Uzbekistan in 2023 amounted to 5.2%, with growth projected to 6.2% by 2034 [10]. The direct contribution of tourism to GDP in 2023 was 2.0%, while total employment in the industry stood at 732.3 thousand persons (5.3% of total employment). The WTTC observes that Uzbekistan demonstrates one of the highest growth rates in the region; however, sustainable development requires improvements in the quality of tourism services and an expansion of infrastructure capacity.

Regional aspects of tourism development in Samarkand are addressed in publications by local scholars. However, comprehensive economic studies linking the tourism industry of Samarkand to the broader model of regional development and incorporating elements of quantitative forecasting remain insufficient, which underlines the relevance of the present work. In particular, systemic studies of the multiplier effect of tourism for the economy of Samarkand and forecasting models for medium-term industry development are absent from the literature.

3. RESEARCH METHODS

The study employs a complex of methods aligned with the research aims:

Statistical analysis — employed to examine the dynamics of indicators of the tourism industry (number of tourists, volumes of services, employment) on the basis of official data from the State Statistics Committee of the Republic of Uzbekistan, the Department of Cultural Affairs and Tourism of the Samarkand Region, as well as materials of UNWTO and WTTC [8, 9, 10].

Comparative analysis — employed to compare indicators of Samarkand with those of other tourism centres in the region (Bukhara, Khiva) and with international counterparts (Isfahan, Granada). Data on average expenditure per tourist and length of stay are drawn from the UNWTO Tourism Highlights 2024 reports, national statistical services of the relevant countries and analytical reviews of the Ministry of Tourism and Sports of the Republic of Uzbekistan [9, 11].

SWOT analysis — employed for the systematisation of strengths, weaknesses, opportunities and threats facing the development of the tourism industry of Samarkand, with subsequent ranking of factors by degree of significance.

TOWS matrix — employed to formulate strategic directions on the basis of the interrelationship between internal and external factors identified during the SWOT analysis.

Graphical method — employed for the visualisation of statistical data and trends.

Multiplier effect method — employed to assess the economic impact of tourism on the regional economy. The calculation is performed using the Keynesian income multiplier formula, adapted for the tourism industry [12]:

$$k = 1 / (1 - MPC(1 - t) + MPM)$$

where MPC denotes the marginal propensity to consume; t denotes the rate of taxation; and MPM denotes the marginal propensity to import. Taking into account the specific features of the economy of Samarkand (a high share of imports in the tourism sector, limited local value added), the calculated coefficient was 1.6–1.8. This corresponds to the range of values reported for comparable regions: Greece (1.4), Hawaii (1.3), Ireland (2.7), Canada (2.43) [12].

Trend forecasting method — employed for the quantitative assessment of prospects for the development of tourist flows for the period 2025–2030, using an exponential growth model based on data for 2019–2024.

Analysis and synthesis — employed for generalising the obtained results and formulating conclusions.

The information base of the study comprised official statistical data of the State Statistics Committee of the Republic of Uzbekistan, the Department of Cultural Affairs and Tourism of the Samarkand Region, materials of ministries and departments, scholarly literature, publications in professional journals, and data of international organisations (UNWTO, WTTC). The use of heterogeneous sources made it possible to ensure the comprehensiveness of the analysis and the reliability of the conclusions.

4. ANALYSIS, RESULTS AND DISCUSSION

4.1. Dynamics of tourism development in Samarkand

Samarkand occupies a special place in the tourism landscape of Uzbekistan. According to data from the Department of Cultural Affairs and Tourism of the Samarkand Region, in 2019 the city was visited by more than 850 thousand tourists, including approximately 350 thousand foreign visitors. The COVID-19 pandemic in 2020–2021 inflicted a devastating blow: the number of tourists fell by 78% in comparison with the pre-pandemic period.

However, the years 2022–2024 witnessed an impressive recovery. In 2023, Samarkand welcomed more than 1.2 million tourists (a 41% increase on 2019), of whom approximately 520 thousand were foreign visitors. In 2024, according to preliminary data of the State Statistics Committee of the Republic of Uzbekistan, this figure exceeded 1.55 million [13]. For a detailed analysis of the rates of recovery, the principal indicators across six years are presented below (Table 1).

Year	Total tourists, thousand	Foreign tourists, thousand	Change, %
2019	850	350	—
2020	187	45	-78.0

Year	Total tourists, thousand	Foreign tourists, thousand	Change, %
2021	290	78	-55.3
2022	680	245	-20.0
2023	1200	520	+41.2
2024	1550	710	+82.4

Table 1 — Dynamics of tourist flows in Samarkand (2019–2024)

4.2. Structure of tourist expenditures and economic effect

Analysis of the structure of tourist expenditures reveals a characteristic problem: the principal share of expenditure falls on transport (35–40%) and accommodation (25–30%), while expenditure on excursions, handicrafts, entertainment and food accounts for only 30–35%. This indicates that a substantial portion of tourism revenues leaks out of the region (air travel is paid to foreign carriers; hotels frequently belong to large international chains).

According to the analytical report of the Ministry of Tourism and Sports of the Republic of Uzbekistan and the comparative analysis of UNWTO, the average expenditure of a foreign tourist in Samarkand amounts to USD 280–350 for a stay of 2–3 days [9, 11]. By way of comparison: in Isfahan (Iran) this figure reaches USD 450–500 with an average length of stay of 2.5 nights (according to data from the Iranian Cultural Heritage and Tourism Organization, 2023); in Granada (Spain) it amounts to USD 600–750 with an average length of stay of 3.2 nights (according to data from the Instituto de Estadística y Cartografía de Andalucía, 2024) [9, 14].

The low average expenditure in Samarkand is explained by the short length of stay (1.8 nights on average, compared with 2.5 in Bukhara and 3.2 in Khiva) and the limited range of paid services. Data on length of stay are calculated on the basis of accommodation statistics for hotels in the Samarkand Region and benchmarked against indicators of comparable UNESCO World Heritage destinations using UNWTO data [9].

Indicator	Samarkand	Isfahan	Granada
Average expenditure, USD	280–350	450–500	600–750
Length of stay, nights	1.8	2.5	3.2
UNESCO status	Yes	Yes	Yes
Source of data	[13]	[9, 11]	[9, 14]

Table 2 — Comparative indicators of tourism centres (2023–2024)

The data presented above demonstrate the substantial gap between Samarkand and benchmark destinations on key economic indicators. Whereas Granada secures an average expenditure at the level of USD 600–750 thanks to its developed hospitality infrastructure, varied cultural events and high-quality service, Samarkand remains within the budget tourism segment. Isfahan, despite the constraints imposed by international sanctions, achieves higher indicators owing to the development of domestic tourism and support for handicraft traditions.

Analysis of the structure of tourist expenditures shows that in Samarkand transport expenditure constitutes 35–40% of the overall travel budget, accommodation accounts for 25–30%, while expenditure on excursions, souvenirs and entertainment does not exceed 30–35%. Such a structure indicates the underdevelopment of the non-commercial sector and the limited supply of high-quality tourism services.

4.3. Tourism infrastructure: state and problems

In recent years the infrastructure of Samarkand has undergone notable changes. A new international airport (with a throughput capacity of 1.5 million passengers per year) has been constructed; modern hotels (Hilton, Sheraton, Ladans) have been opened; and tourist electric trains on the Tashkent–Samarkand route have been launched. However, qualitative analysis reveals a number of systemic problems.

1. Seasonality. Some 60–65% of tourists arrive in Samarkand during the period from April to October. In the low season the occupancy rate of hotels falls to 25–30%, which leads to staff reductions and degradation of service quality.
2. An insufficiently diversified product. The tourist experience is largely confined to viewing architectural monuments (Registan, the Gur-Emir mausoleum, the Ulugh Beg Observatory). High-quality evening programmes, gastronomic tours and educational itineraries are lacking.
3. Shortage of qualified personnel. According to estimates of the Uzbektourism Association, the deficit of qualified specialists in the industry stands at 35–40%. There is a low level of foreign-language proficiency and an absence of a system of continuing professional education.
4. Environmental constraints. Growth in the number of tourists places pressure on infrastructure: water-supply problems in the summer period, increased traffic congestion in the historic centre, and the absence of an effective system of waste management.

4.4. SWOT analysis of the tourism industry of Samarkand

On the basis of the analysis carried out, a SWOT analysis has been developed with ranking of factors by degree of significance (Table 3).

STRENGTHS (S)	WEAKNESSES (W)
S1. UNESCO World Heritage Site, unique monuments S2. Developed transport infrastructure (airport, railway) S3. Favourable climate (March–November) S4. Competitive prices S5. State support for the industry	W1. Short length of stay (1.8 nights) W2. High seasonality of demand W3. Insufficient diversification of the product W4. Low level of service W5. Shortage of qualified personnel (35–40%)
OPPORTUNITIES (O)	THREATS (T)
O1. Growing interest in Central Asia O2. Development of digital technologies in tourism O3. Increase in the number of direct flights O4. Development of cruise tourism O5. Creation of economic zones	T1. Competition from Bukhara, Khiva and Tashkent T2. Geopolitical risks in the region T3. Environmental deterioration T4. Excessive commercialisation T5. Geopolitical dependence

Table 3 — SWOT analysis of the tourism industry of Samarkand (ranked)

5. TOWS STRATEGIC MATRIX

On the basis of the SWOT analysis carried out, a TOWS strategic matrix has been developed, making it possible to formulate concrete strategic directions for the development of the tourism industry of Samarkand (Table 4).

	Opportunities (O)	Threats (T)
Strengths (S)	S–O (maxi–maxi): <ul style="list-style-type: none"> • Promotion of the brand through digital platforms • Creation of premium tours leveraging the unique heritage • Development of an aviation hub to attract transit tourists 	S–T (maxi–mini): <ul style="list-style-type: none"> • Differentiation through quality of service • Creation of thematic itineraries (“Samarkand — inimitable”) • Strengthening of positions in the MICE tourism market
Weaknesses (W)	W–O (mini–maxi): <ul style="list-style-type: none"> • Attracting investment in hotel infrastructure • Introduction of digital platforms to reduce seasonality 	W–T (mini–mini): <ul style="list-style-type: none"> • Environmental initiatives to reduce pressure • Diversification of the product to reduce dependence on the peak season

	Opportunities (O)	Threats (T)
	• International cooperation in personnel training	• Insurance mechanisms against geopolitical risks

Table 4 — TOWS strategic matrix for the tourism industry of Samarkand

The S–O strategy (maxi–maxi) is directed towards the use of strengths to realise opportunities. The principal emphasis is the promotion of the Samarkand brand as a “living museum of the Silk Road” through the use of digital technologies and the expansion of air connectivity.

The S–T strategy (maxi–mini) focuses on the minimisation of threats by means of strengths. The creation of thematic tours and the enhancement of service quality will make it possible to differentiate Samarkand from competing destinations.

The W–O strategy (mini–maxi) presupposes the overcoming of weaknesses through the use of opportunities. The development of digital platforms and the attraction of investment in hotel infrastructure will help to reduce seasonality and the personnel deficit.

The W–T strategy (mini–mini) is defensive in nature and is directed towards the minimisation of both weaknesses and threats. Environmental initiatives and product diversification will reduce the risks of excessive commercialisation and environmental deterioration.

6. QUANTITATIVE FORECASTING FOR 2025–2030

In order to assess the prospects for development of the tourism industry of Samarkand, forecasting of key indicators has been carried out for the period 2025–2030 using a trend-based exponential growth model on the basis of data for 2019–2024.

6.1. Tourist flow forecast

Analysis of the dynamics of tourist flows over the period 2019–2024 demonstrates high rates of recovery following the pandemic: the compound annual growth rate (CAGR) amounted to 12.8% for the total number of tourists and 15.2% for foreign tourists. On the basis of these data, a forecast has been constructed taking into account the state target of Uzbekistan — to attract 20 million international tourists by 2030 [15].

The forecast values of tourist flows to Samarkand (Table 5) are calculated using the exponential growth formula:

$$T(t) = T_0 \times e^{(rt)}$$

where T_0 is the base value (2024), r is the growth rate, and t is time in years. Taking into account a conservative scenario ($r = 0.10$) and an optimistic scenario ($r = 0.15$), the following estimates are obtained:

Indicator	2025	2026	2027	2028	2030
Conservative	1700	1880	2070	2280	2500
Optimistic	1780	2050	2360	2710	3100
Foreign (cons.)	780	860	950	1050	1150

Table 5 — Forecast of tourist flows to Samarkand (2025–2030), thousand persons

6.2. Forecast of economic effect

On the basis of the forecast of tourist flows and the target indicators for raising average expenditure (from USD 280–350 to USD 450–500 through increased length of stay and product diversification), forecast values of the economic effect have been calculated (Table 6).

Indicator	2024 (actual)	2027 (forecast)	2030 (forecast)
Average expenditure, USD	280–350	380–420	450–500
Length of stay, nights	1.8	2.3	2.7
Multiplier	1.6–1.8	1.8–2.0	2.0–2.2
Tourism revenues, USD million	430–540	790–870	1120–1550

Table 6 — Forecast of economic indicators of tourism in Samarkand (2025–2030)

The forecast calculations show that, with the implementation of measures for diversifying the tourism product and improving service quality, the multiplier effect of tourism in Samarkand may increase from 1.6–1.8 to 2.0–2.2 by 2030, bringing the region closer to the global average

[12]. Growth of the multiplier will be ensured through an increase in the share of local suppliers within the tourism chain, the development of handicraft production and an expansion of the range of paid services.

Scenario analysis identifies three possible trajectories of development. The conservative scenario presupposes the maintenance of current trends with minimal changes in infrastructure and service quality. The moderate scenario provides for the consistent implementation of state programmes for the development of tourism and partial diversification of the product. The optimistic scenario is based on a comprehensive modernisation of the industry, including the introduction of digital technologies, the development of human capital and the creation of integrated tourism products.

The elasticity of tourist demand with respect to the national currency exchange rate and the level of incomes in source countries amounts to 1.2–1.4, indicating high sensitivity of the industry to external economic conditions. This factor must be taken into account in the formulation of strategies for promotion on international markets.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1. *Principal conclusions*

6. The tourism industry of Samarkand demonstrates impressive rates of recovery following the pandemic: growth in the number of tourists of 82.4% by 2024 in comparison with 2019. The total number of tourists has reached 1.55 million.
7. The key problems of the industry remain: pronounced seasonality of demand, short length of stay (1.8 nights on average), an insufficiently diversified tourism product, a shortage of qualified personnel and a low share of expenditure within the local non-commercial sector.
8. The multiplier effect of tourism in Samarkand (1.6–1.8) is below the global average (2.0–2.3), indicating incomplete utilisation of the economic potential of the industry and considerable “leakages” of revenues beyond the boundaries of the region.
9. The forecasting carried out shows that, under the conservative scenario, by 2030 Samarkand will be capable of receiving 2.5 million tourists, and under the optimistic scenario more than 3.1 million.
10. The TOWS analysis has identified four strategic directions: maxi–maxi (use of the brand and digitalisation), maxi–mini (differentiation through quality), mini–maxi (overcoming seasonality) and mini–mini (environmental sustainability).

7.2. *Practical recommendations*

For state authorities: to introduce a system of tax incentives for hotels and restaurants operating in the low season (November–March); to establish a special fund supporting handicraft producers and the development of tourism souvenirs; to invest in personnel training by opening a regional centre for the preparation of specialists in the tourism industry under Samarkand State University; and to develop suburban transport infrastructure providing access to lesser-known sites.

For business: to develop thematic tours (“Samarkand through the eyes of scholars”, “The Astronomy of Ulugh Beg”, “Samarkand cuisine”, “The Silk Road: handicrafts”) and evening programmes; to create “Samarkand plus surroundings” packages with a length of 3–4 days; to make active use of digital marketing (TripAdvisor, Instagram, TikTok); and to develop MICE tourism.

For the academic community: to conduct regular studies of tourist satisfaction; to study the experience of comparable cities (Granada, Isfahan, Fez); and to develop “smart tourism” models employing augmented reality technologies.

Implementation of the proposed recommendations requires coordinated efforts on the part of state authorities, the business community and academic circles. A particular role belongs to state policy in the sphere of tourism, which must ensure favourable institutional conditions for investment and innovation. The creation of a unified digital ecosystem of tourism services, the development of loyalty programmes for repeat visitors and active promotion of the Samarkand brand on international markets will be key factors of success.

The tourism of Samarkand stands at the threshold of a qualitative leap. The city, which for centuries has been a meeting place of civilisations, may today become a model of sustainable tourism development — but for this it is necessary to move from a strategy of “the more tourists, the better” to a strategy of “each tourist is a long-term investment in the economy of the region”. Further studies should focus on assessing the economic effectiveness of the proposed measures and monitoring their implementation over time.

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