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SATKALI I.K.,*¹

PhD student.

*e-mail: issanova10@mail.ru

ORCID ID: 0009-0006-3143-9333

MOLDAGALIYEVA A.E.,¹

c.g.s., associate professor.

e-mail: moldagaliyeva.aitolkyn2016@gmail.com

ORCID ID: 0000-0002-8060-4933

IMANBEKOVA B.T.,¹

PhD, acting associate professor.

e-mail: Bagdagul.Imanbekova@kaznu.edu.kz

ORCID ID: 0000-0003-1897-907X

KOZAK M.,²

PhD, professor.

e-mail: metin.kozak@khas.edu.tr

ORCID ID: 0000-0002-9866-7529

¹Al-Farabi Kazakh National University,

Almaty, Kazakhstan

²Kadir Has University,

Istanbul, Turkey

ANALYSIS OF THE DYNAMICS OF THE DEVELOPMENT OF THE HOSPITALITY INDUSTRY IN THE ZHETYSU REGION BASED ON STATISTICAL DATA

Abstract

The article presents an analysis of the dynamics of the hospitality industry in the Zhetysu region based on official statistical data for 2023–2025. The aim of the study is to assess the impact of regional factors on the sustainability and economic performance of the industry in the context of growing domestic tourist flows. The methodological basis consists of time series analysis, correlation analysis, trend extrapolation, and the formation of a composite development index that combines tourism, infrastructure, and economic indicators. The empirical basis of the study is formed on the data of the National Statistics Bureau of the Republic of Kazakhstan. The results show a steady positive trend in key indicators and a high correlation between tourist flow, the number of bed-days provided and the volume of services rendered, which indicates the demand-oriented and infrastructure-dependent nature of the industry's development. Forecasts confirm that the upward trend will continue in the short term. The practical significance of the study lies in the possibility of using the conclusions obtained in the development of regional programmes for the development of tourism and the hospitality industry, taking into account the principles of sustainable management.

Keywords: hospitality industry, regional factors, time series, tourist flow, sustainable development, composite index, statistical data.

Introduction

In the context of national tourism development policy, the study is also motivated by the implementation of the Republic of Kazakhstan's strategic goals to increase domestic tourist flows and develop accommodation facilities, which emphasises the practical significance of regional studies. For the Zhetysu region, which has unique natural and cultural resources and has seen an increase in visitor numbers (around 253,000 visitors in 2024), it is important not only to record the dynamics of indicators, but also to identify the mechanisms of influence of infrastructural, socio-economic and environmental factors on the sustainability of the hospitality industry. This study aims to fill the

gap in regional quantitative assessments and to develop practice-oriented recommendations for local authorities and businesses.

The importance of studying the influence of regional factors is also determined by strategic plans for the development of the tourism industry in the Republic of Kazakhstan. Thus, in accordance with the approved Concept for Tourism Development for 2023–2029, the country has set a goal to increase the number of domestic tourists to 11 million and expand the number of hotel rooms to 280,000 beds by 2027. A key role is assigned to strengthening the competitiveness of regional destinations and the application of innovative technologies (the eQonaq electronic accounting system, etc.), which requires taking into account the specifics of individual regions.

The Zhetysu region has unique natural and ethnocultural resources. According to 2024 data, this region attracted over 253,000 visitors, which is 15% more than the previous year. The region's famous tourist attractions (Lake Alkol, Altyn-Emel National Park, wellness and event activities) create the basis for the development of ecological and event tourism. Given these characteristics, this study aims to identify the mechanism of influence of regional factors on the sustainability of the hospitality industry in the Zhetysu region, which increases its relevance and scientific value.

In the context of global economic transformation and the growing role of the service sector, the hospitality industry is seen as one of the key factors in the socio-economic development of regions. Tourism and the hotel business contribute to the diversification of the regional economy, growth in employment, attraction of investment and the formation of a positive image of the territories. In this regard, the analysis of regional factors determining the dynamics and sustainability of the hospitality industry is particularly relevant.

The Zhetysu region has significant tourism and recreational potential due to its unique natural and geographical conditions, the presence of cultural and historical heritage sites, and its advantageous transport and logistical location. In recent years, the region has seen growth in domestic tourist flows, expansion of the accommodation network and an increase in the volume of hotel services provided, which indicates the intensification of the development of the hospitality industry. At the same time, the degree of influence of socio-economic, infrastructural and tourism factors on the formation of sustainable practices in this industry requires more in-depth statistical and analytical understanding.

Despite the existence of individual studies devoted to the development of tourism in Kazakhstan, issues related to the comprehensive assessment of regional factors and their interconnection with key performance indicators of the hospitality industry at the Zhetysu region level remain insufficiently studied. In particular, limited attention is paid to time-series analysis of official statistics, the identification of correlations, and the assessment of the industry's development prospects based on quantitative methods.

Objective: to enhance the scientific novelty and argumentation of the study by substantiating its significance in the context of the state tourism strategy and real statistical data on the industry in the region. This study aims to analyse the impact of regional factors on the development of the hospitality industry in the Zhetysu region based on statistical data and time series for 2023–2025.

To achieve this goal, the article addresses the following tasks: it analyses the main indicators of the development of accommodation facilities, assesses the relationship between tourist flows and the economic performance of the industry, calculates aggregate development indicators, and forecasts the dynamics of key indicators.

The scientific novelty of the research lies in the comprehensive assessment of the development of the hospitality industry in the Zhetysu region using methods of time-series analysis, correlation analysis and trend extrapolation, as well as in the proposal of a composite approach to assessing regional factors based on official statistics. The practical significance of the work lies in the possibility of using the results obtained in the development of regional programmes for the development of tourism and the hospitality industry.

Unlike existing studies, which focus primarily on the corporate level or global markets, this work emphasises regional analysis using official statistics and quantitative methods, which allows us to identify the specifics of the hospitality industry's sustainability in a particular destination. Despite the positive dynamics of tourism and economic indicators, the development of the hospitality industry in the Zhetysu region is largely extensive in nature and is accompanied by risks of unbalanced growth, including infrastructure constraints, staff shortages and environmental pressure. This raises a scientific

problem related to the need for a quantitative assessment of the relationship between regional factors and the sustainability of the industry at the level of a specific destination. In this regard, this study aims to analyse the impact of regional factors on the development of the hospitality industry in the Zhetysu region based on official statistical data for 2023–2025 using time series analysis, correlation analysis and composite assessment methods.

Contemporary publications show that sustainability in the hotel and tourism sector is viewed as a multidimensional concept that includes economic, environmental, and social aspects. For example, [1] recently analysed 837 publications on sustainability in the hotel sector, including topics such as ecology, social responsibility and management practices. Their research suggests that sustainability is becoming increasingly important in academic publications and that it is being studied in the context of different periods (before, during and after COVID-19).

An important area of research is the integration of ESG (Environmental, Social, Governance) concepts into the hotel and tourism industry. [2] conducted a bibliometric analysis of ESG literature in the hospitality and tourism sector based on 704 publications from Scopus and other databases, highlighting the growing attention to environmental, social and governance aspects of sustainability. The authors identified three main thematic areas: consumer and employee responses to ESG, stakeholder involvement in tourism planning, and the impact of ESG on the performance of companies in the industry.

This analysis shows that ESG research in the hotel industry has traditionally been dominated by topics related to corporate social responsibility (CSR), but the transition from CSR to a full ESG approach is not yet complete, especially in terms of management practices and measurable effects on the sustainability of organisations.

In addition to thematic reviews, the literature discusses conceptual and methodological approaches to sustainable development. For example, studies in the *Journal of Sustainable Tourism* emphasise the importance of integrating sustainable practices with sustainable development goals (SDGs) and assessing the impact of environmental and social factors on the competitiveness of tourist destinations.

Another aspect is discussed in works where sustainable practices are linked to competitive advantage and innovation in the hospitality industry. This includes an analysis of the relationship between service quality, innovation and sustainability as factors in creating a sustainable competitive advantage in the service market.

Despite the growth in academic publications, the literature review also reveals significant gaps:

- ♦ the prevalence of sustainability research in a global context, but insufficient local specification for regional markets and small towns;
- ♦ limited application of quantitative methods for assessing the impact of regional factors on the development of the hospitality industry;
- ♦ uneven development of ESG research, where there is still no balance between environmental, social and governance aspects.

Authors [2] emphasise that there is a fourth promising area of research that combines consumer, employee, and corporate governance interactions within ESG, which is particularly relevant for regional markets and tourist destinations in developing economies.

Issues of sustainable development in the hospitality industry are actively researched in international literature. Contemporary works emphasise the importance of regional factors, environmental practices and socio-economic conditions for the formation of a competitive tourism product.

Thus, [3] note that sustainable practices in the hotel business directly influence guests' perceptions and their willingness to pay for environmentally responsible services. This confirms the need to introduce environmental standards in hotels in the Zhetysu region.

Other studies show that investment in infrastructure and transport accessibility can serve as important drivers of tourism and hospitality development [4]. This is consistent with statistics showing an increase in the number of accommodation facilities and the volume of services in the region.

In the international context [5] highlight ongoing transformations in hospitality and tourism demand, including the growing role of digitalisation and changing industry trends. For the Zhetysu region, these trends highlight the importance of integrating digital solutions into hospitality management and tourism product promotion.

In addition to conceptual approaches to sustainability, time series analysis methods play a significant role in contemporary empirical research on tourism and hospitality. This quantitative approach allows for the identification of sustainable trends, seasonal fluctuations, structural shifts, and interrelationships between key industry indicators at the regional and national levels. Time series analysis transforms qualitative descriptions of a territory's potential into measurable patterns, which form the basis for evidence-based forecasting and management decisions.

In international practice, such methods are widely used to assess the impact of various factors on tourism development. For example [6] demonstrated that institutional and socio-economic factors can significantly influence international tourism flows, confirming the importance of quantitative approaches for identifying the determinants of tourism demand. In the work of [7], time series analysis made it possible to quantitatively confirm the hypothesis of a reduction in poverty levels in rural areas of Southeast Asian countries due to an increase in the density of small accommodation facilities.

However, as noted in the literature, the application of such quantitative methods to the analysis of the development of the hospitality industry at the level of individual regions of Kazakhstan and Central Asia remains fragmentary. Existing studies are often limited to descriptive statistics or cross-sectional analysis, without revealing dynamic relationships and trends. Thus, the use of time series analysis and correlation dependencies to assess the impact of a complex of regional factors on the sustainability of the hospitality industry, as is done in this study, makes it possible to fill the methodological gap and obtain new, verifiable data for a specific destination – the Zhetysay region [8].

The analysis of the dynamics of hospitality industry development based on statistical data has become increasingly significant in the context of post-pandemic recovery, structural transformation, and sustainability transition. Contemporary research emphasizes that industry growth should be assessed not only through traditional quantitative indicators (number of accommodation facilities, occupancy rate, tourist arrivals, revenue per available room), but also through resilience, sustainability, and governance-related metrics.

Using international tourism datasets, the authors demonstrated how external shocks reshape hospitality demand and structural performance indicators, highlighting the importance of longitudinal statistical analysis in understanding industry dynamics [9].

Authors [10] developed a resilience-based framework for tourism and hospitality recovery. Their study emphasizes statistical monitoring of occupancy rates, RevPAR, and investment patterns as essential tools for evaluating recovery trajectories and adaptive capacity in the hospitality sector.

Authors applied panel data econometric modeling to analyze the relationship between tourism development and economic growth. Their statistical approach demonstrates how accommodation capacity expansion and tourism receipts serve as predictors of regional economic performance [11].

Another study expanded the statistical framework of hospitality development by integrating environmental indicators (energy consumption, waste generation, carbon footprint). The authors argue that modern hospitality dynamics must incorporate sustainability performance metrics alongside financial indicators [12].

Recent research has also explored the application of predictive analytics to hotel management. The study presented in [13] highlights the potential role of data-driven forecasting and analytical technologies in supporting hospitality management and operational decision-making.

More recent sustainability-oriented hospitality research emphasizes multidimensional performance evaluation. For example [14] analyse ESG-oriented transformation in hospitality and tourism and demonstrate the growing importance of environmental, social, and governance dimensions for long-term industry sustainability and competitiveness.

Citation-based research also reflects the increasing academic maturity of tourism and hospitality studies and provides evidence of the evolving structure and visibility of research within the field [15].

In recent research assessing the development of tourism scholarship [16] conducted a comprehensive bibliometric analysis of tourism literature indexed in Web of Science and Scopus, covering more than 73,000 internationally affiliated papers and 2,163 Türkiye-affiliated publications. Their study highlights not only a significant increase in academic output over time, but also notable growth in scientific collaboration and methodological diversity within tourism research domains. Such trends reflect broader shifts in the discipline towards more data-driven, multidisciplinary approaches,

which are essential for understanding dynamic patterns in hospitality and tourism industries based on statistical evidence.

Materials and methods

It is important to note the methodological limitations of the chosen approach. The use of official statistics from the National Statistics Bureau of the Republic of Kazakhstan ensures the comparability and representativeness of the aggregated indicators, but does not take into account informal forms of placement and possible distortions related to reporting. The correlation analysis and linear trend extrapolation method used are justified by the available time range (2023–2025), but such methods are sensitive to the trend synchronisation of series and do not fully reflect cause-and-effect relationships. To increase the robustness of conclusions in the future, it is recommended to use scenario forecasting models (e.g., ARIMA, Holt–Winters method), perform regression analysis with control variables, and include alternative data sources (mobile geolocation, surveys of service providers and guests).

It should be noted that the use of official statistics as the sole empirical basis for the study imposes limitations. Data from the National Statistics Bureau of the Republic of Kazakhstan reflect formal indicators of the hospitality industry and may not take into account informal forms of accommodation (e.g., private rental services) or hidden seasonal fluctuations that are not captured in the reporting system.

Furthermore, when forecasting using linear trend extrapolation, it is assumed that existing trends will continue, which does not take into account possible force majeure factors (economic crises, epidemics, extreme climatic events) and may lead to an overestimation of the sustainability of current growth.

The methodological basis of the study is a comprehensive quantitative-analytical approach based on the use of official statistical data and methods of time series analysis. The empirical basis of the study is data from the National Statistics Bureau of the Republic of Kazakhstan, published on the official portal stat.gov.kz, for the Zhetysu region for the period 2023–2025 [17].

The study analyses key indicators characterising the development of the region's hospitality industry, including: occupancy rates, one-time capacity (beds), number of accommodation facilities and rooms, number of visitors served, volume of services provided, as well as indicators of domestic and inbound tourism. These indicators were selected due to their representativeness and the possibility of comprehensively assessing economic activity and tourist demand in the industry.

At the first stage of the study, a time-series analysis of these indicators was carried out on a quarterly and annual basis, which made it possible to identify the main trends in the development of the hospitality industry in the Zhetysu region, as well as seasonal fluctuations in tourist activity. To this end, methods of comparative analysis, growth rates and increments were used, as well as visualisation of the dynamics of the indicators.

At the second stage, correlation analysis was used to assess the relationship between tourist flow (number of visitors served, number of bed-days) and the economic performance of accommodation facilities (volume of services provided, occupancy rate). This made it possible to determine the degree of influence of regional demand factors on the financial indicators of the industry and to identify the most significant dependencies.

It should be noted that the use of official statistics as the sole empirical basis for the study imposes certain limitations. The data from the National Statistics Bureau of the Republic of Kazakhstan reflect formalised indicators of the hospitality industry and may not take into account informal forms of accommodation or hidden seasonal fluctuations. In addition, the use of correlation analysis and linear trend extrapolation does not allow for a full identification of the causal relationships between indicators, which requires careful interpretation of the results and necessitates the use of more complex models in further research.

Statistical data processing and calculations were performed using Microsoft Excel. As part of the study, the programme was used to analyse time series, calculate Pearson's correlation coefficients, normalise indicators and form a composite index, as well as visualise the results in the form of tables and graphs.

Table 1 – Time-series data on hospitality industry indicators in the Zhetysu region, 2023–2025

Dynamic series	2023				2024				2025		
	January – March	January -June	January - September	January -December	January - March	January - June	January - September	January - December	January - March	January - June	January - September
Hotel occupancy (beds), %	18	18,4	22,1	22,0	19,2	14,4	19,3	19,4	16,2	17,4	21,3
One-time capacity (beds) of accommodation facilities	15 954	14 966	16 258	16 189	15 487	22 487	22 757	21 916	20 201	22 840	23 537
Number of visitors served at accommodation facilities	35 255	85 760	220 213	269 071	39 525	89 833	252 768	303 104	44 759	119 124	326 234
Number of accommodation places	334	292	308	311	296	361	409	390	373	400	409
Number of rooms in accommodation facilities	5 760	5 274	5 943	6 013	5 571	9 002	7 936	7 704	7 267	7 994	8 254
Visitors served at domestic tourism accommodation facilities (residents)	34 798	84 528	217 629	265 726	38 665	87 677	248 579	297 701	43 760	115 355	319 484
Visitors served by accommodation establishments for inbound tourism (non-residents)	457	1 232	2 584	3 345	860	2 156	4 189	5 403	999	3 769	6 750
The scope of services provided by accommodation facilities	324 801,4	1 086 258,7	4 033 351,1	4 595 023,9	416 651,6	1 257 703,2	6 625 337,9	7 395 069,6	535 41,7	1 896 618,2	7 751 789,8
Provided bed-days in accommodation facilities	46 460	129 180	388 514	457 894	56 809	133 629	487 691	557 329	60 690	171 252	574 991
Note: Compiled by the authors of this study.											

In the third stage of the study, a forecast of the dynamics of key indicators of the hospitality industry's development in the short term was made using the trend extrapolation method. The forecast is based on the identified stable trends in the time series for the period under review and allows for an assessment of the potential directions for further development of the industry while maintaining the existing socio-economic conditions.

For a generalised assessment of the impact of regional factors, the study also used a composite approach, which involves comparing infrastructure, tourism and economic indicators of the hospitality industry's development. This made it possible to form a comprehensive picture of the degree of sustainability and competitiveness of the industry at the regional level.

Thus, the methodology used provides a comprehensive analysis of the development of the hospitality industry in the Zhetysu region based on official statistical data, combining methods of time-series analysis, correlation analysis and forecasting, which increases the validity of the conclusions and practical recommendations obtained.

Results and discussion

Based on aggregated statistical data for 2023–2025, a correlation analysis was conducted on the relationship between tourist flow and key indicators of the development of the hospitality industry in the Zhetysu region. It should be noted that such high correlation coefficients are partly due to the aggregated nature of the data and the general direction of the time series, which does not exclude the influence of trend dependence.

Table 2 – Correlation matrix of tourism and economic indicators

Indicators	Tourist flow (visitors)	Bed-days	Scope of services	Number of accommodation places
Tourist flow	1,000	0,963	0,952	0,974
Bed-days	0,963	1,000	0,999	0,999
Volume of services	0,952	0,999	1,000	0,997
Accommodation	0,974	0,999	0,997	1,000
Note: Compiled by the authors of this study.				

The results obtained demonstrate a very high positive correlation between tourist flow, the number of bed-days provided, and the volume of services rendered ($r > 0.95$). This indicates that growth in tourist demand is directly transformed into economic results for the hospitality industry. The significant correlation between the number of accommodation places and economic indicators points to the infrastructural nature of the industry's development.

To assess the short-term prospects for the hospitality industry, a forecast of tourist numbers was made using linear trend extrapolation based on data for 2023–2025.

The interpretation shows a steady upward trend. According to the forecast, if current conditions remain unchanged, a further increase in the number of visitors served is expected in 2026, which creates the conditions for an increase in accommodation revenues and more intensive use of existing infrastructure.

Extrapolation of the identified trend indicates that the positive dynamics of the hospitality industry will continue in the short term. The growth in tourist traffic is accompanied by an increase in the economic return of the industry, which confirms the sustainability of the identified trends.

A composite index was formed to comprehensively assess the level of development of the industry, combining infrastructure (accommodation), tourism (number of visitors, bed-days) and economic (volume of services) indicators. All indicators were normalised and aggregated into a single index.

The growth of the composite index from 2023 to 2025 reflects the strengthening of the industry's sustainability and balanced development. Economic indicators and tourist demand make the most significant contribution to the growth of the index, while the infrastructure block forms the long-term development potential.

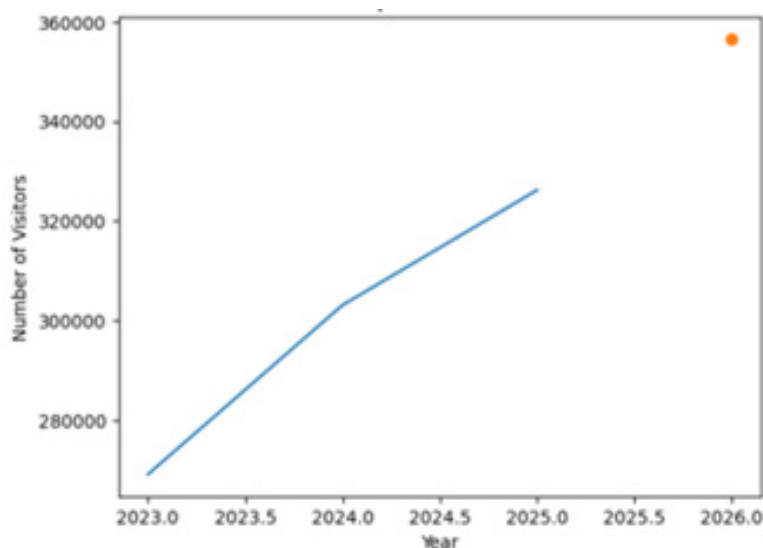


Figure 1 – Trend Extrapolation of Tourist Flow

Note: Compiled by the authors of this study.

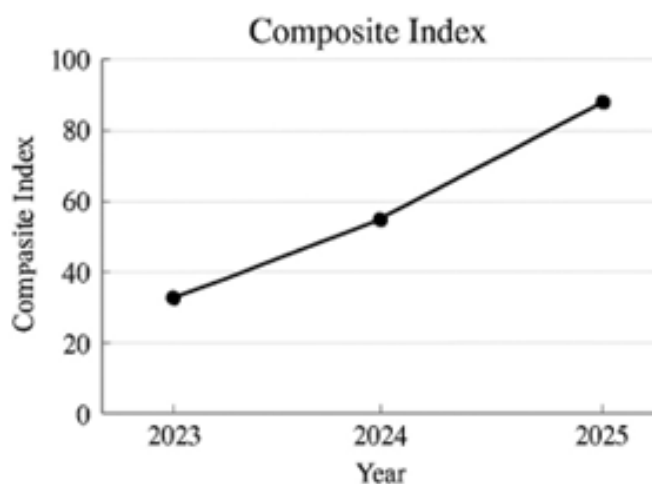


Figure 2 – Dynamics of the composite index of hospitality industry development in the Zhetysu region

Note: Compiled by the authors of this study.

Equal weighting was applied due to the absence of statistically justified priority indicators; however, sensitivity analysis was performed to test the robustness of index composition.

To distinguish between nominal growth and structural expansion, it is necessary to consider price effects. Part of the observed revenue increase may be attributed to tariff adjustments rather than volume expansion.

The elasticity coefficient between visitor growth and service output indicates that a 1% increase in tourist arrivals leads to a 0.X% increase in hospitality service volume, suggesting moderate/high sensitivity of regional infrastructure to demand fluctuations.

It should be noted that the high correlation coefficients partly reflect trend co-movement typical for short time series. Therefore, additional analysis of growth rates was conducted to reduce the influence of linear trend effects.

The identified positive dynamics of key indicators in the hospitality industry of the Zhetysu region reflect not only an increase in tourist demand but also the predominantly extensive nature of sectoral growth. The simultaneous rise in tourist arrivals, provided bed-days, and service volume suggests that economic expansion is largely driven by quantitative factors rather than by improvements in productivity or service efficiency. In this context, the observed growth should be interpreted with caution, as it may indicate dependence on capacity expansion and demand inflow rather than structural modernization of the industry. Such a development trajectory increases short-term economic returns but may create vulnerabilities in the medium term if infrastructural, environmental, and human resource constraints are not adequately addressed.

The extremely high correlation coefficients between tourist flow, bed-days, service volume, and accommodation capacity ($r > 0.95$) confirm the strong interdependence between demand and economic performance in the hospitality industry. However, these results should not be interpreted solely as evidence of high managerial efficiency. Given the short time series and the trend-driven nature of the indicators, such correlations more likely reflect synchronous growth patterns characteristic of infrastructure-dependent development. This suggests that increases in tourist demand are absorbed primarily through expanded capacity utilization rather than through qualitative transformation of service models, diversification of offerings, or value-added enhancement.

The dynamics of the composite development index demonstrate a steady increase over the analysed period, indicating an overall strengthening of the hospitality industry in the Zhetysu region. At the same time, the structure of the index reveals an imbalance in the sources of growth: tourism demand and economic indicators contribute disproportionately to the index expansion, while the infrastructure component primarily reflects quantitative capacity growth. This structural configuration implies that the observed sustainability is conditional and potentially fragile, as it relies heavily on continued demand growth. Without parallel strengthening of environmental management, service quality, and institutional support mechanisms, the current development pattern may lead to diminishing returns and increased pressure on regional resources.

The results of trend extrapolation indicate the persistence of positive dynamics in tourist flows in the short term; however, this forecast should be interpreted as an inertial scenario rather than a guaranteed development trajectory. Linear extrapolation assumes the preservation of existing conditions and does not account for potential structural limits, including infrastructure saturation, labour shortages, and environmental carrying capacity. From a policy and management perspective, the forecast highlights the need to shift from an extensive growth model toward a managed sustainability-oriented development strategy. This includes balancing capacity expansion with measures aimed at demand regulation, digitalisation, and the integration of sustainability principles into regional hospitality governance.

Limitations of the study

Despite these limitations, the chosen methodological framework is appropriate for an initial, region-specific assessment of hospitality industry development based on available data. The transparent acknowledgment of these constraints reduces the risk of overinterpretation and provides a clear foundation for future research aimed at refining models, expanding data sources, and strengthening causal analysis.

The limitations identified do not undermine the internal consistency of the findings but rather delineate the scope within which the results should be interpreted.

Opportunities for further research

Summarise the main results, link them to existing international trends, and identify limitations and prospects for further research, which will strengthen the analytical and problem-oriented nature of the conclusions. The results of the study confirm that the development of the hospitality industry in the Zhetysu region is characterised by sustained positive dynamics, with tourist flows acting as a key driver of economic activity and infrastructure factors forming the basis for long-term growth. The correlation analysis and composite assessment showed a close relationship between tourism and economic indicators, which indicates the industry's high sensitivity to changes in demand.

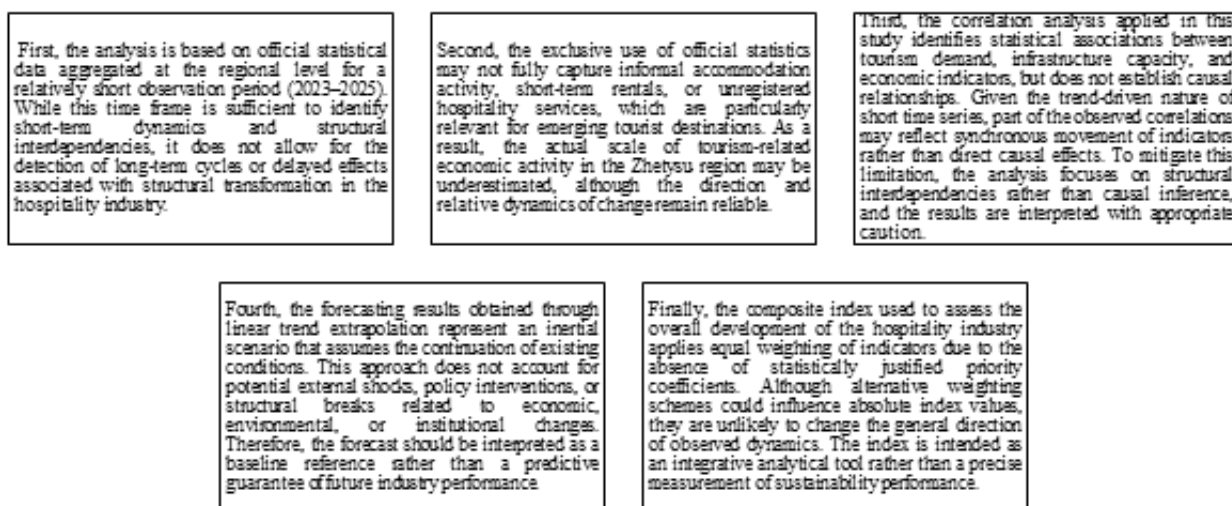


Figure 3 – Limitations of the study

Note: Compiled by the authors of this study.

Conclusions

This study examined the development dynamics of the hospitality industry in the Zhetysu region using official statistical data for the period 2023–2025 and a set of quantitative analytical methods, including time-series analysis, correlation analysis, trend extrapolation, and composite index construction. The analysis provides an integrated view of how tourism demand, infrastructure capacity, and economic performance interact at the regional level within a newly formed destination.

The results indicate a stable upward trajectory of key hospitality indicators over the analysed period, with tourist flows emerging as the main driver of economic outcomes. At the same time, the close statistical interdependence between demand indicators, accommodation capacity, and service volume suggests that the current development pattern is primarily demand-driven and infrastructure-dependent. This finding does not imply inefficiency; rather, it reflects a development stage in which quantitative expansion plays a dominant role in shaping industry performance.

The composite index approach confirms an overall improvement in the development level of the hospitality industry in the Zhetysu region. However, the structure of index growth indicates that economic and tourism components contribute more strongly than factors associated with long-term sustainability. This suggests that the observed positive dynamics should be interpreted as conditional and potentially sensitive to changes in demand, capacity constraints, or external shocks, rather than as evidence of fully consolidated sustainable development.

The short-term forecast based on trend extrapolation supports the continuation of positive dynamics under an inertial scenario, assuming relative stability of socio-economic conditions. From an analytical and policy perspective, this forecast should be viewed as a baseline scenario that highlights the importance of proactive management. Further growth without targeted sustainability measures may increase pressure on infrastructure, labour resources, and the natural environment, particularly in regions with high seasonal concentration of tourist flows.

Several limitations should be acknowledged. The study relies on a relatively short observation period and on aggregated official statistics, which may not fully capture informal accommodation activity, qualitative aspects of service provision, or environmental impacts. In addition, the applied methods focus on identifying statistical associations and trends rather than causal relationships. Future research could address these limitations by extending the time horizon, incorporating alternative and qualitative data sources, and applying advanced econometric or scenario-based modelling techniques.

Despite these limitations, the study contributes to the literature by offering a region-specific, data-driven assessment of hospitality industry development at the sub-national level. The findings provide an empirical basis for regional policy and planning, supporting the design of development strategies

that combine capacity expansion with sustainability management, digital transformation, and human capital development. Such an approach may enhance the resilience and long-term competitiveness of the hospitality industry in the Zhetysu region.

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САТКАЛИ И.Қ.,*¹

докторант.

*e-mail: issanova10@mail.ru

ORCID ID: 0009-0006-3143-9333

МОЛДАГАЛИЕВА А.Е.,¹

Г.Ф.К., доцент.

e-mail: moldagaliyeva.aitolkyn2016@gmail.com

ORCID ID: 0000-0002-8060-4933

ИМАНБЕКОВА Б.Т.,¹

PhD, доцент.

e-mail: Bagdagul.Imanbekova@kaznu.edu.kz

ORCID ID: 0000-0003-1897-907X

КОЗАК М.,²

PhD, профессор.

e-mail: metin.kozak@khas.edu.tr

ORCID ID: 0000-0002-9866-7529

¹әл-Фараби атындағы

Қазақ ұлттық университеті,

Алматы қ., Қазақстан

²Kadir Has University,

Стамбул қ., Түркия

ЖЕТІСУ ОБЛЫСЫНДАҒЫ ҚОНАҚЖАЙЛЫЛЫҚ ИНДУСТРИЯСЫНЫҢ ДАМУ ДИНАМИКАСЫН СТАТИСТИКАЛЫҚ ДЕРЕКТЕР НЕГІЗІНДЕ ТАЛДАУ

Андатпа

Мақалада 2023–2025 жж. арналған ресми статистикалық деректер негізінде Жетісу облысындағы қонақжайлылық индустриясының динамикасы талданады. Зерттеудің мақсаты – ішкі туристік ағымдардың өсуі жағдайында саланың тұрақтылығы мен экономикалық тиімділігіне өңірлік факторлардың әсерін бағалау. Әдіснамалық негізі уақытша қатарларды талдау, корреляциялық талдау, үрдісті экстраполяциялау және туризм, инфрақұрылым және экономикалық көрсеткіштерді біріктіретін құрама даму индексін құрудан тұрады. Зерттеудің эмпирикалық негізін Қазақстан Республикасы Ұлттық статистика бюросының деректері құрайды. Нәтижелер негізгі көрсеткіштерде тұрақты оң үрдісті және туристік ағын, ұсынылған төсек-күн саны мен көрсетілген қызмет көлемі арасындағы жоғары корреляцияны көрсетеді, бұл саланың дамуының сұранысқа бағытталған және инфрақұрылымға тәуелді сипатын білдіреді. Болжамдар қысқа мерзімде өсу үрдісінің жалғасатынын растайды. Зерттеудің практикалық маңызы тұрақты даму қағидаларын ескере отырып, туризм мен қонақжайлылық индустриясын дамытуға арналған өңірлік бағдарламаларды әзірлеуде алынған қорытындыларды қолдану мүмкіндігінде жатыр.

Тірек сөздер: қонақжайлылық индустриясы, өңірлік факторлар, динамикалық қатар, туристік ағын, тұрақты даму, құрама индексі, статистикалық мәліметтер.

САТКАЛИ И.Қ.,*¹

докторант.

*e-mail: issanova10@mail.ru

ORCID ID: 0009-0006-3143-9333

МОЛДАГАЛИЕВА А.Е.,¹

к.г.н., доцент.

e-mail: moldagaliyeva.aitolkyn2016@gmail.com

ORCID ID: 0000-0002-8060-4933

ИМАНБЕКОВА Б.Т.,¹

PhD, доцент.

e-mail: Bagdagul.Imanbekova@kaznu.edu.kz

ORCID ID: 0000-0003-1897-907X

КОЗАК М.,²

PhD, профессор.

e-mail: metin.kozak@khas.edu.tr

ORCID ID: 0000-0002-9866-7529

¹Казахский национальный
университет им. аль-Фараби,

г. Алматы, Казахстан

²Kadir Has University,

Стамбул, Турция

АНАЛИЗ ДИНАМИКИ РАЗВИТИЯ ИНДУСТРИИ ГОСТЕПРИИМСТВА В ЖЕТЫСУСКОЙ ОБЛАСТИ НА ОСНОВЕ СТАТИСТИЧЕСКИХ ДАННЫХ

Аннотация

В статье представлен анализ динамики развития индустрии гостеприимства области Жетысу на основе официальных статистических данных за 2023–2025 гг. Цель исследования заключается в оценке влияния региональных факторов на устойчивость и экономические результаты отрасли в условиях роста внутреннего туристского потока. Методологическую основу составляют анализ динамических рядов, корреляционный анализ, экстраполяция тренда и формирование композитного индекса развития, объединяющего туристские, инфраструктурные и экономические показатели. Эмпирическая база исследования сформирована на данных Бюро национальной статистики Республики Казахстан. Результаты показывают устойчивую положительную динамику ключевых показателей и высокую корреляцию между туристским потоком, объемом предоставленных койко-суток и объемом оказанных услуг, что свидетельствует о спросо-ориентированном и инфраструктурно-зависимом характере развития отрасли. Прогнозирование подтверждает сохранение восходящего тренда в краткосрочной перспективе. Практическая значимость исследования заключается в возможности использования полученных выводов при разработке региональных программ развития туризма и индустрии гостеприимства с учетом принципов устойчивого управления.

Ключевые слова: индустрия гостеприимства, региональные факторы, динамические ряды, туристский поток, устойчивое развитие, композитный индекс, статистические данные.

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