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SPATIAL ORGANIZATION AND CONCENTRATION OF TOURIST ACCOMMODATION IN THE EASTERN KAZAKHSTAN REGION

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Spatial organization and concentration of tourist accommodation in the Eastern Kazakhstan region

Abstract. The article analyzes the spatial structure of tourist accommodations in the East Kazakhstan region based on the dynamics of the number of accommodations by stable administrative units from 2020 to 2024. The purpose of the study is to identify the degree of territorial differentiation, concentration, and typological differences in the development of accommodation infrastructure. The methodological basis includes descriptive statistics and the assessment of dynamics by territory, calculation of spatial concentration indices (Herfindahl–Hirschman index) and distribution unevenness (Gini coefficient), as well as clustering of territories based on a combination of average level, relative change, and variability of the indicator. The results confirm the structural transformation of the space: a core of territories with a high level of provision of accommodation facilities is forming, while peripheral areas with low values and limited dynamics are being preserved. Concentration and unevenness indicators show that the structural "framework" of distribution is being preserved, with a tendency toward increasing differences between groups of territories. The proposed typology (core-semi-periphery-periphery) can be used to justify differentiated management decisions in regional tourism policy and to prioritize infrastructure development measures.

Key words: spatial organization, tourist accommodation, spatial concentration, Herfindahl-Hirschman Index, Gini coefficient, East Kazakhstan Region.

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Шығыс Қазақстан облысындағы туристік орналастыру объектілерін кеңістіктік ұйымдастыру және шоғырландыру

Аңдатпа. Мақалада Шығыс Қазақстан облысындағы орналастыру нысандары санының ауытқуына негізделген туристерді орналастырудың кеңістіктік құрылымы талданады. Деректер 2020-2024 жылдардағы тұрақты әкімшілік бірліктерге негізделген. Зерттеудің мақсаты – орналастыру инфрақұрылымын дамытудағы аумақтық саралау, шоғырлану және типологиялық айырмашылықтар дәрежесін анықтау. Әдістеме сипаттамалық статистика мен динамиканы бағалауды, кеңістіктік концентрация индекстерін есептеуді (Херфиндаль-Хиршман индексі) және біркелкі емес үлестіруді бағалауды (Джинни коэффициенті), және орташа деңгей, салыстырмалы өзгерістер мен көрсеткіштің өзгергіштігін біріктіру арқылы аумақтарды кластерлеуді қамтиды. Нәтижелер кеңістіктік біртектіліктің трансформациясын растайды: орналастыру орындарының жоғары тығыздығымен сипатталатын аумақтарда ядро қалыптасса, перифериялық аймақтарда қанағаттанарлықсыз көрсеткіштер мен шектеулі динамика сақталады. Шоғырлану және біркелкі емес көрсеткіштер бөлудің құрылымдық «шеңберлерінің» сақталуын көрсетеді, бұл аумақтық топтар арасындағы диспропорциялардың нашарлау тенденциясымен бірге жүреді. Ұсынылған типология (ядро – жартылай периферия – периферия) аймақтық туристік саясат шеңберінде басқарудың сараланған стратегияларын негіздеу және инфрақұрылымды дамыту жөніндегі бастамаларды айқындау үшін қолданылады.

Түйін сөздер: кеңістіктік ұйымдастыру, туристерді орналастыру, кеңістіктік шоғырлану, Херфиндаль-Хиршман индексі, Джини коэффициенті, Шығыс Қазақстан облысы.

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Пространственная организация и концентрация туристских объектов размещения в Восточно-Казахстанской области

Аннотация. В статье анализируется пространственная структура размещения туристов в Восточно-Казахстанской области, основанная на колебаниях количества объектов размещения. Данные основаны на стабильных административных единицах за 2020-2024 годы. Целью исследования является определение степени территориальной дифференциации, концентрации и типологических различий в развитии инфраструктуры размещения. Методология включает в себя описательную статистику и оценку динамики, расчет пространственных индексов концентрации (индекс Херфиндаля-Хиршмана) и оценку неравномерного распределения (коэффициент Джинни), а также кластеризацию территорий путем объединения среднего уровня, относительных изменений и изменчивости показателя. Результаты подтверждают трансформацию пространственной неоднородности: формируется ядро территорий, которые характеризуются высокой плотностью жилых объектов, в то время как периферийные районы сохраняют демонстрирующие неудовлетворительные показатели и ограниченную динамику. Показатели концентрации и неравномерности указывают на сохранение структурных «рамок» распределения,

что сопровождается тенденцией к усугублению диспропорций между территориальными группами. Предложенная типология (ядро – полупериферия – периферия) применима для обоснования дифференцированных стратегий управления в рамках региональной туристской политики и определения инициатив по развитию инфраструктуры.

Ключевые слова: пространственная организация, размещение туристов, пространственная концентрация, индекс Херфиндаля-Хиршмана, коэффициент Джини, Восточно-Казахстанская область.

Introduction. The spatial organization of tourism is one of the key factors in regional development, as tourist activity and related services form heterogeneous "hubs" of growth and peripheral areas with varying levels of involvement in the tourism economy. The East Kazakhstan region (EKR) has a unique natural landscape, which requires a thorough approach when planning tourist infrastructure, routes, accommodation facilities, taking into account the recreational load on the territory and the environment.

The East Kazakhstan region is known for its natural attractions, including Katon-Karagay National Park, the largest in Kazakhstan, which was designated as a UNESCO Biosphere Reserve in 2014 and as part of the transboundary biosphere reserve "Great Altai" in 2017 [1]. Despite its high tourism potential, issues related to the uneven distribution of tourist flows remain relevant. Within the framework of the National Concept for the Development of the Tourism Industry of the Republic of Kazakhstan for the period 2023-2029, particular emphasis is placed on regional tourism as one of the key drivers of economic growth. In this context, the East Kazakhstan region, possessing significant natural and cultural potential, plays an important role in achieving the objectives of the concept [2].

One of the most important factors influencing the transformation of the tourism space of the East Kazakhstan region is the administrative-territorial reform of 2022, including the establishment of the Abai region [3, 4]. This reform became a key step towards a more integrated approach to regional development, highlighting the need to strengthen local governance, promote economic growth, and improve the quality of life of the population. The creation of new districts contributed to the optimization of public administration and improved access to services by reducing distances to administrative centres and slowing migration processes. It should also be noted that changes in administrative boundaries lead to changes in the number of specially protected natural areas within regions, which in turn affects the planning and organization of tourist routes and tourist mobility [5].

These changes have significantly affected the structure of tourism infrastructure, including the spatial distribution of accommodation facilities and the level of disparities across districts. In this regard, there is a need to analyse the territorial differentiation of the tourism space of the East Kazakhstan region in the context of ongoing socio-economic transformations, including rural development and the growing tourism activity in the Katon-Karagay district.

For a practical assessment of the spatial organization of the tourism sector, an important criterion is the distribution of accommodation facilities, because, unlike tourist flows, the accommodation infrastructure reflects the potential of the territory. That is, analysing the distribution of facilities by administrative districts makes it possible to identify a territorial imbalance. This helps to assess the degree of concentration of the tourist offer and draw practical conclusions for the regional tourism policy.

Despite the existence of studies devoted to the development of tourism in the regions of Kazakhstan, the regional level of analysis of the spatial structure of accommodation infrastructure remains underdeveloped, especially in terms of quantitative assessment of concentration and typology of territories. As a result, management decisions are often based on generalized indicators that do not reflect intra-group differences between areas. This leads to a research gap: a transparent methodological analysis is needed to determine the degree of concentration of accommodation infrastructure in specific areas, the evolution of the distribution structure over time. And the types of areas that can be distinguished based on their level and development dynamics.

The purpose of this study is to assess the spatial structure of tourist accommodation in the East Kazakhstan region based on the dynamics of the number of accommodations by stable administrative units from 2020 to 2024. To achieve this goal, the following **objectives of the study** have been set:

1. To characterize the territorial differentiation and dynamics of the number of accommodation facilities by administrative units.

2. To assess the degree of concentration and uneven distribution of accommodation facilities using the Herfindahl-Hirschman index and the Gini coefficient.

3. To form a typology of territories based on the combination of the level, dynamics, and sustainability

of the development of accommodation facilities (clustering) and interpret it from the point of view of tourism development management.

The scientific novelty of the study lies in the application of a set of quantitative indicators of concentration (HHI), inequality (Gini), and typology of territories to statistical data on accommodation facilities at the subregional level within the East Kazakhstan region. The practical significance is determined by the possibility of using the results obtained to justify a differentiated approach to regional tourism policy: the identification of the core, semi-periphery, and periphery allows for a more accurate formulation of priorities for infrastructure measures, business support, and improving the accessibility of tourism services.

The structure of the article includes an introduction, an overview of approaches to assessing the spatial structure of tourist accommodation, a description of data and analysis methods, the results of the assessment of differentiation and concentration, the typology of territories, and conclusions.

Literature review. Spatial organization of tourism in contemporary scientific literature is viewed as the result of the interaction between tourism resources, infrastructure, settlement, and transport accessibility, which form a stable configuration of the region's tourism space. One of the key elements of this configuration is accommodation facilities, which reflect the accumulated infrastructure potential of the territory and are characterized by high inertia compared to tourist flows. In this regard, accommodation facilities are widely used as an indicator of spatial tourism development at the regional and subregional levels [6, 7].

Studies of the spatial distribution of accommodation facilities show that their location is highly uneven and tends to form local concentrations. Based on data from urban and regional destinations, it has been established that hotels and other accommodation facilities are concentrated near transport hubs, tourist attractions, and business areas, forming the core of the tourist space [6-9]. Spatial-temporal analysis of hotel locations allows us to identify stable patterns of localization that persist over time and determine the structure of the tourist infrastructure of the territory [7].

An important area of research is the analysis of the spatial concentration of tourism activities and infrastructure. Indices borrowed from regional economics and economic geography are widely used for quantitative assessment of concentration, in particular the Herfindahl–Hirschman Index, which allows assessing the degree of concentration of tourism supply between administrative units [10]. The application of this index in tourism research shows its suitability for analyzing regional and subregional tourism systems [11]. Along with this, the Gini coefficient is actively used to measure the unevenness of the spatial distribution of tourist facilities and to compare the levels of differentiation between territories [12].

The development of spatial analysis methodology has led to the emergence of modified approaches to measuring concentration that take into account spatial interactions between territories. The use of the so-called locational Gini allows for the influence of the proximity of administrative units and territorial connectivity to be taken into account, which is particularly important for regions with a sparse settlement network [13]. Despite their greater methodological complexity, these approaches confirm the basic conclusion about the tendency of tourism infrastructure to spatial concentration [13, 14].

A separate area of research is related to the clustering and typology of territories based on tourism development indicators. Cluster analysis is widely used to group regions and districts according to the level of infrastructure development, dynamics, and sustainability of tourism activities. The formation of typologies allows us to move from simple ranking of territories to the identification of structural groups-the core, semi-periphery, and periphery of the tourist space [15, 16]. In practical terms, such typologies are used to justify differentiated measures of regional tourism policy.

Studies of tourist clusters show that accommodation facilities often form spatial agglomerations together with catering, leisure, and transport enterprises, enhancing the effects of local development [8, 14]. The cluster structure of accommodation affects the competitiveness of destinations and the spatial distribution of tourist activity in both urban and regional tourism systems [17].

At the same time, much of the work on the spatial structure of tourism is based on detailed geodata and is analyzed mainly at the level of cities or individual destinations. Research at the administrative district level using official statistics on accommodation facilities is less common in the literature [10, 18]. This explains the relevance of studies aimed at identifying spatial differentiation and concentration of tourism infrastructure at the subregional level.

For Kazakhstan and its regions, scientific works mainly focus on the socio-economic effects of tourism and general trends in the development of the industry. Based on data from the East Kazakhstan region, the

importance of tourism for the regional economy and the need for a comprehensive assessment of its impact have been demonstrated [19]. At the same time, the spatial structure of tourist infrastructure at the district level has only been examined in fragments [20]. In this context, it is important to analyze the spatial differentiation, concentration, and typological structure of accommodation facilities in the region in order to supplement existing studies with a more detailed spatial approach and increase their practical significance.

Materials and methods. The study uses official statistical data on the number of accommodation facilities by administrative districts of East Kazakhstan Region for 2020-2024. The main indicator was selected for accommodation facilities in East Kazakhstan, which reflects the level of development of the basic tourist infrastructure at the territorial level. Due to the division of some districts, for comparability of data, only administrative districts that maintain stable borders throughout the entire observation period were included in the analysis. The districts formed as a result of administrative and territorial reforms from 2022 to 2024 were not included in the dynamic analysis.

To ensure data comparability for the period of 2020-2024, a retrospective approach was applied: territories transferred to the Abai region, as well as newly established districts lacking complete data for the entire period, were excluded from the analysis. Data for 2020-2021 were aligned with the current administrative boundaries, which enabled a consistent comparison of indicators over time. This made it possible to trace the evolution of the emerging spatial structure of the tourism space.

Data processing and analysis were performed in the R environment. During the data preparation stage, the completeness of the time series was checked, the names of administrative units were unified, and the source tables were converted into a format that ensured correct spatial-temporal comparison of indicators.

The dplyr and tidyr packages (data preparation and transformation), ggplot2 (visualization), ineq and DescTools (calculation of spatial concentration indices), as well as basic R functions for calculating dynamics and variation indicators, were used for statistical processing and visualization. Cluster analysis was performed using standard clustering procedures in the R environment.

Descriptive statistics methods were used to assess the spatial differentiation of accommodation development, including the calculation of mean and median values, as well as indicators of variation between regions. The level of spatial concentration of tourist accommodation was assessed using concentration indices (the Gini coefficient and the Herfindahl–Hirschman index), which allow characterizing the degree of infrastructure concentration in individual administrative units.

The nature of changes in tourist accommodation levels across regions was assessed using indicators of relative dynamics and development sustainability, including the standard deviation and coefficient of variation for the period under review. Cluster analysis based on standardized indicators of accommodation level, dynamics, and sustainability was then used to identify typological differences among regions. Regions were grouped based on the similarity of standardized indicators, which helped reduce subjectivity in forming the typological clusters.

To obtain a generalized description of the spatial structure of tourist accommodation, an integrated assessment of the level of development of accommodation facilities by region was carried out, which made it possible to identify the spatial hierarchy of tourist development in the region. The results obtained reflect the spatial features of the development of accommodation facilities within the selected time interval and do not claim to identify long-term trends in the development of tourist infrastructure.

Results. Spatial differentiation of tourist accommodation. An analysis of the distribution of accommodation facilities across districts in East Kazakhstan Region for 2020–2024 revealed significant spatial differentiation. The values of the indicator vary considerably between districts, as evidenced by differences in average and median values and a high level of variation.

Even within a relatively short time frame, there is a persistent asymmetry in the distribution of tourism infrastructure, with a significant portion of accommodation facilities concentrated in a limited number of districts, while a number of areas are characterized by a low level of infrastructure provision. This indicates structural heterogeneity in the region's tourism space (Table 1).

The data presented in the table indicate that the development of accommodation facilities across districts is uneven: the gap between territories with minimum and maximum values persists throughout the entire period from 2020 to 2024. At the same time, most districts demonstrate relatively low levels, while a few territories significantly outperform others. The dynamics also vary: some districts show growth, whereas others experience stagnation or decline.

Table 1 – Descriptive statistics and dynamics of the number of accommodation facilities by administrative units of the East Kazakhstan Region in 2020-2024 (stable territories)

Area	2020	2024	Average	Median	Minimum	Maximum	Standart deviation	Coefficient of variaton (CV)	Growth in 2024 compared to 2020, %
Altai District	102	105	104,4	105	102	105	1,34	0,013	2,9
Ust-Kamenogorsk City	40	63	50,2	57	33	63	12,95	0,258	57,5
Katon-Karagay District	23	50	38	40	23	50	10,7	0,282	117,4
Ridder Town	36	41	37	36	34	41	2,92	0,079	13,9
Ulan District	18	21	19,4	19	18	21	1,14	0,059	16,7
Glubokovsky District	19	21	18,4	18	17	21	1,67	0,091	10,5
Shemonaikha District	9	9	10	10	9	11	1	0,1	0
Zaisan District	10	9	9,4	9	9	10	0,55	0,058	-10
Kurchum District	8	4	6,8	7	4	8	1,64	0,242	-50
Tarbagatai District	10	3	6	3	3	11	4,12	0,687	-70
Note: Authors constructed this note using data from Bureau of National Statistics of the Republic of Kazakhstan [21]									

The coefficient of variation (CV) helps assess the stability of these changes (Figure 1): higher values indicate greater fluctuations over time. The values of standard deviation and CV reflect differences in the stability of tourism infrastructure development across districts. A high CV value in the Tarbagatai district (0.687) is associated with a sharp decrease in the number of accommodation facilities (from 10 to 3), which may indicate structural changes in the area's development. In contrast, a low CV value in the Altai district (0.013) points to the stability of tourism infrastructure. Thus, variation indicators make it possible to distinguish between more stable and less stable areas of tourism development. Part of this dynamic may be linked to the administrative changes of 2022, including the creation of new districts from the territory of the Tarbagatai district.

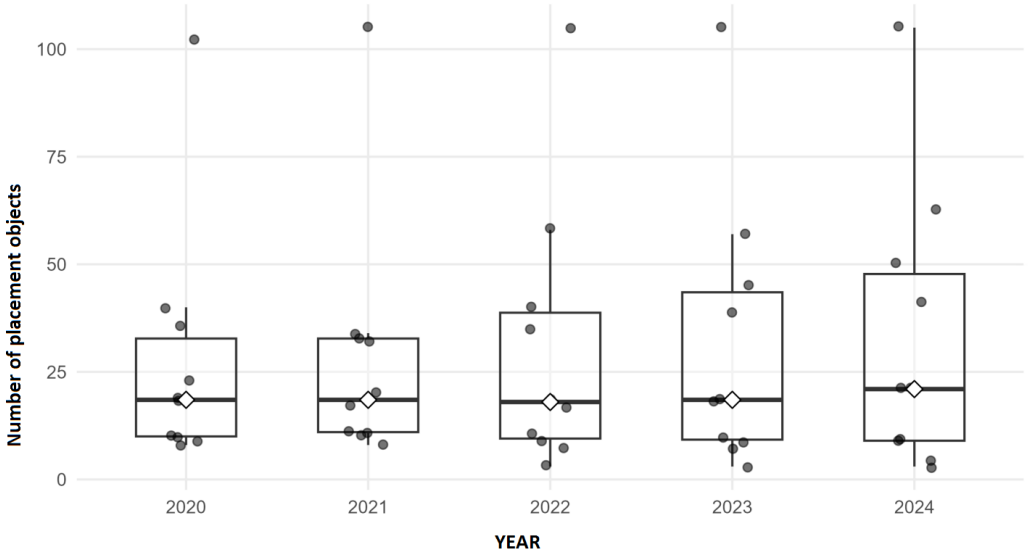

Figure 1 – Distribution of the number of placement facilities by administrative units of the East Kazakhstan Region in 2020–2024
Note: compiled by authors based on sources [21]

The swing diagram shows a stable transformation heterogeneity in the distribution of accommodation facilities between administrative units in the region: in all years, there is a wide spread of values with a relatively compact median. The presence of observations in the upper range, significantly above the main cluster, indicates leading territories that form the infrastructural core of tourist accommodation. In 2023-2024, the spread and upward shift of the upper values will visually intensify, indicating not so much uniform growth as the growth of individual territories. Overall, the distribution remains asymmetrical: most territories are concentrated at the bottom of the scale, while the contribution of the leaders is significantly above average.

Spatial concentration of accommodation facilities.

The calculation of spatial concentration indices showed that tourist accommodation in East Kazakhstan Region is characterized by moderate but stable concentration. A comparison of the Gini coefficient and the Herfindahl-Hirschman index at the beginning and end of the period under review indicates that the established core of tourist accommodation has been preserved.

The results suggest a spatial hierarchy of tourism infrastructure, in which individual areas serve as important accommodation centers, while a significant portion of the territory remains on the periphery of tourism development. This structure reflects stable spatial differences in the level of infrastructure development rather than transient variations (Figure 2a).

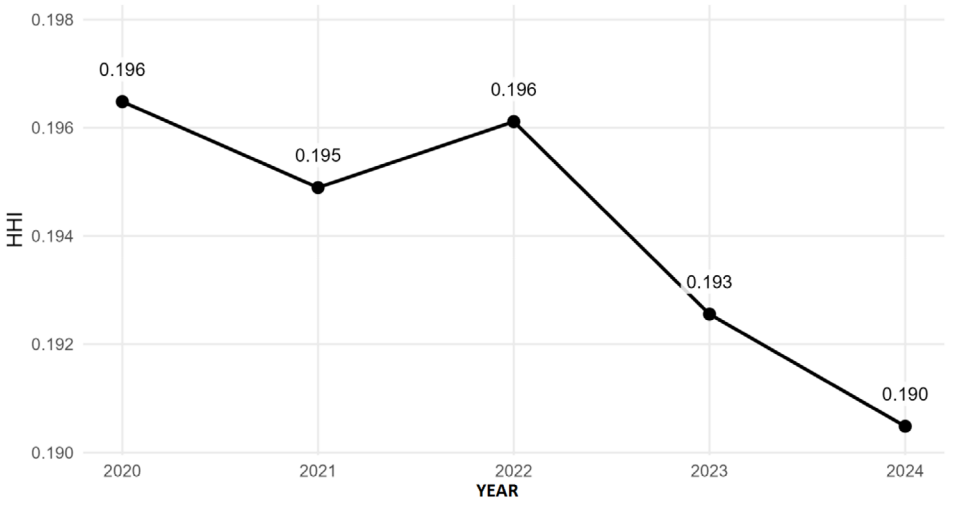

Figure 2a – Dynamics of the Herfindahl–Hirschman Index (HHI) of concentration of placement objects in the East Kazakhstan Region in 2020–2024
Note: compiled by authors based on sources [21]

HHI values fluctuate within a narrow range of 0.190-0.196, indicating a relatively stable distribution structure of placement objects between territories. At the same time, there is a decline in the index by 2024 (from 0.196 to 0.190), which is interpreted as a weak trend towards deconcentration: the share of leading territories in the total number of facilities is slightly decreasing, or growth is occurring not only in one "core." However, the scale of the changes is small, so the structural "framework" of distribution remains the same: distribution is still noticeably concentrated around a limited number of territories (Figure 2b).

In 2020-2021, the Gini coefficient indicates a moderate level of inequality (0.448 → 0.433). Starting from 2022, the indicators are growing (0.495-0.501), reflecting high inequality. A Gini coefficient of 0.501 indicates a relatively high level of inequality in the distribution of tourism infrastructure across the East Kazakhstan region. This pattern is driven not only by natural conditions but also by socio-economic factors: investment, transport accessibility, and tourist demand are concentrated in specific growth areas such as the Katon-Karagay district and Ust-Kamenogorsk, while peripheral districts, including Tarbagatai and Kurchum, lag significantly behind. As a result, a limited number of territories concentrate the majority of accommodation facilities, reflecting a spatial pattern of tourism concentration characteristic of the region. Only a limited number of territories are experiencing changes, while most of them remain at a low level (Table 2).

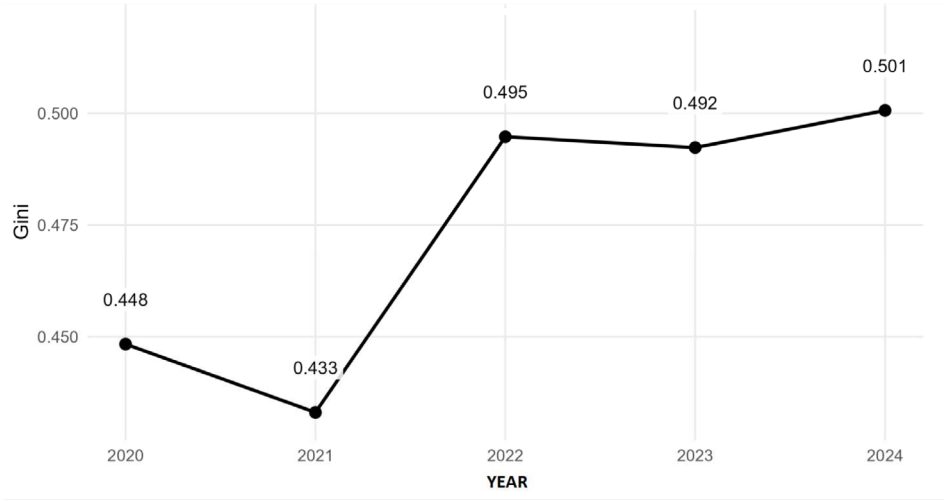

Figure 2b – Dynamics of the Gini coefficient of uneven distribution of placement objects in the East Kazakhstan Region in 2020-2024
Note: compiled by authors based on sources [21]

Table 2 – Indices of spatial concentration and uneven distribution of placement objects in the EKR (HHI and Gini coefficient), 2020-2024

Year	Herfindahl-Hirschman Index (HHI)	Gini coefficient
2020	0,196	0,448
2021	0,195	0,433
2022	0,196	0,495
2023	0,193	0,492
2024	0,19	0,501
Note: Compiled by authors		

The table shows the dynamics of two complementary indicators of spatial structure. HHI values are within a narrow range (around 0.190-0.196), which indicates relative stability in concentration: the distribution of facilities between territories retains its basic "framework" and does not undergo any sharp structural shifts. At the same time, the Gini coefficient shows more noticeable dynamics and reaches values of around 0.495-0.501 in 2022-2024, which indicates an increase in spatial unevenness.

The decline in the Herfindahl-Hirschman Index (HHI) alongside the increase in the Gini coefficient does not represent a contradiction but reflects different aspects of the spatial structure: a decrease in overall concentration may occur simultaneously with a widening gap between territories. In the East Kazakhstan region, this is manifested in the growing importance of specific tourism centres. For instance, an increase in the number of accommodation facilities is observed in the Katon-Karagay and Altai districts, while a decline in tourism infrastructure is recorded in others, such as Tarbagatai and Kurchum. As a result, the overall structure becomes less concentrated but more uneven. Such dynamics are typical of regions undergoing structural transformation and reflect the process of forming a new spatial organization of tourism.

Discussion. The results of cluster analysis made it possible to form a typology of regions in the East Kazakhstan Region by level and nature of accommodation development. The typology distinguishes between groups of regions with a relatively high and stable level of development of tourist accommodation, regions with an average level and moderate dynamics, and territories with limited and unstable infrastructure development.

The typology reflects the spatial structure of tourism development in the region and allows us to move from describing individual indicators to a comprehensive characterization of territories. The identification of typological groups creates the basis for a differentiated approach to managing the development of tourism infrastructure at the district level (Figure 3).

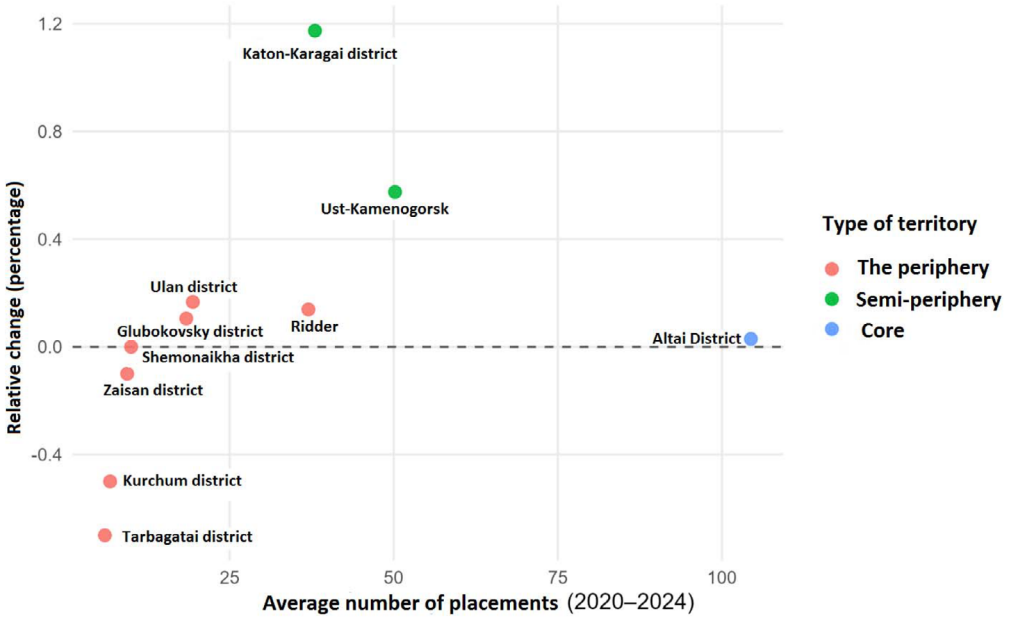

Figure 3 – Typology of administrative units in the East Kazakhstan Region by level and dynamics of development of placement facilities (average and relative change for 2020-2024)
Note: compiled by authors based on sources [21]

The diagram clearly confirms the existence of a spatial hierarchy: territories are grouped into three types-core, semi-periphery, and periphery. The core is characterized by the highest average level of placement objects with near-zero dynamics, which corresponds to a mature and stable infrastructure base (on the graph, this is the territory with the highest average value). Semi-peripheral territories show a noticeable rate of growth at an average level of development. In Katon-Karagai, the increase is +120 %, in Ust-Kamenogorsk +60 %. Such dynamics confirm the growth of investment and entrepreneurial activity in the region. In some regions, there is a decrease in indicators due to the closure or legal re-registration of accommodation facilities (Table 3).

Table 3 – Typology of administrative units in the East Kazakhstan Region by level and dynamics of development of placement facilities (clustering: core – semi-periphery – periphery), 2020-2024

Territory	Average (2020–2024)	Relative change (share)	Relative change, %	Standard deviation	Cluster	Territory type
Altai District	104,4	0,029	2,9	1,34	2	Core
Ust-Kamenogorsk City	50,2	0,575	57,5	12,95	1	Semi-periphery
Katon-Karagay District	38	1,174	117,4	10,7	1	Semi-periphery
Ridder Town	37	0,139	13,9	2,92	3	Periphery

Ulan District	19,4	0,167	16,7	1,14	3	Periphery
Glubokovsky District	18,4	0,105	10,5	1,67	3	Periphery
Shemonaikha District	10	0	0	1	3	Periphery
Zaisan District	9,4	-0,1	-10	0,55	3	Periphery
Kurchum District	6,8	-0,5	-50	1,64	3	Periphery
Tarbagatai District	6	-0,7	-70	4,12	3	Periphery
Note: Authors constructed this note using data from Bureau of National Statistics of the Republic of Kazakhstan [21]						

The table presents the results of the typology of territories based on a combination of level (average value for 2020-2024), dynamics (relative change 2024/2020), and stability (standard deviation). The identification of clusters allows us to move from a simple listing of values to an interpretation of the spatial structure of the region as a "core-semi-periphery-periphery" system.

The clustering of districts was carried out based not only on the number of accommodation facilities but also on their growth dynamics and development stability. This approach makes it possible to consider accommodation as an element of the spatial organization of tourism rather than merely a set of quantitative indicators. The Altai district forms the core due to its high concentration and stability. Ust-Kamenogorsk and the Katon-Karagay district are classified as semi-peripheral areas, as they demonstrate strong growth and are increasing their importance within the accommodation structure despite their smaller scale. The remaining districts, including Ridder, are classified as peripheral, as they are characterized by weaker dynamics or declining indicators.

The resulting typology reflects processes of concentration and redistribution of tourism infrastructure in the region and provides a more accurate description of the emerging spatial structure of accommodation.

The results confirm that the development of tourism infrastructure is spatially selective and requires consideration of territorial specifics when forming regional tourism policy.

Conclusion. The analysis of the spatial structure of tourist accommodation in the East Kazakhstan region revealed a transformation in the territorial distribution of accommodation facilities. The results show that tourism accommodation in the region is developing unevenly and remains in a state of change. On the one hand, certain areas, particularly the Altai district, maintain a stable concentration of accommodation facilities; on the other hand, disparities between districts are increasing. This is due to the fact that some areas, such as the Katon-Karagay district and Ust-Kamenogorsk, are actively expanding their infrastructure, while others, including Tarbagatai and Kurchum, are experiencing a decline. Overall, this reflects a redistribution of tourism activity and the formation of a new spatial structure of accommodation.

The cluster analysis confirmed the division into core, semi-peripheral, and peripheral areas: some territories act as stable centers, others as zones of growth, while a number remain underdeveloped. This structure indicates that tourism development in the region is uneven and requires differentiated approaches for different types of territories.

The practical implications of the results can be expressed in the following recommendations:

– for core areas – maintaining service quality and diversifying tourism offerings to reduce pressure and enhance sustainability;

– for semi-peripheral areas – stimulating investment and developing accommodation infrastructure as growth points;

– for peripheral areas – implementing targeted support measures, including improving transport accessibility and basic tourism infrastructure;

– developing inter-district tourist routes to redistribute flows and reduce spatial disparities;

– introducing monitoring of the spatial distribution of accommodation facilities to identify emerging growth and decline areas in a timely manner.

A limitation of the study is the use of a single indicator, the number of accommodation facilities. In addition, the study does not include formal statistical hypothesis testing, which may be addressed in future research. Future research may be expanded by incorporating data on capacity, tourist flows, and the spatial location of facilities.

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