

RESEARCH ARTICLE

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Assessment of Trends in the Development of Regional Differences in Kazakhstan

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EJEB**Abstract**

The aim of the current study is to assess regional differences in urban development in Kazakhstan using ten indicators classified by financial and economic health, business development, and standard of living. The data from 2018 to 2022 was analyzed, and a rating system was used to evaluate the regions. The data was collected from open sources. A literature review was conducted to determine the leading ten indicators. The research methodology used a rating system to identify leader regions and lag over the past five years. Ten points evaluated each indicator; as a result of all calculations, the maximum score could reach 100 points. The best five-year result was 63.1 in Astana city, 60.8 in Almaty city and 59.6 in Atyrau region. The lowest indicator is in the North Kazakhstan region - 23.7 points, followed by the Kyzylorda region (24.4) and Pavlodar region (25.3). Almaty and Astana cities excel in financial contributions, while other regions receive significant funds based on various factors such as natural resources. The analysis reveals low entrepreneurship development but an increasing number of SMEs. Population growth is observed in the cities of Astana and Almaty, while regional disparities in wages and poverty levels persist. Atyrau region is an industrial region with a low retail rate. The study's results can be used to implement regional development programs.

Keywords: Economy, Economic Indicators, Social Indicators, Region, Regional Development, Rating, Cities, Kazakhstan

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1. INTRODUCTION

Regional differences in development play a crucial role in shaping the socio-economic landscape of a country. Understanding and assessing these regional differences are essential for policymakers and stakeholders to implement effective strategies for balanced regional growth and development. This study focuses on assessing trends in the development of regional differences at the level of cities in Kazakhstan.

Kazakhstan, as the largest landlocked country in the world, encompasses a diverse range of regions, each with its unique characteristics, resources, and development potential. The country is divided into 17 regions, including 14 regions and three cities of republican significance. These regions vary in location, population size, economic activities, and historical development (Tsaurkubule et al., 2022).

The assessment of regional differences in Kazakhstan is of particular significance due to the country's transition from a centrally planned economy to a market-oriented system after gaining independence in 1991. This transition has led to varying economic transformations and development across different regions. The government of Kazakhstan has recognized the importance of addressing regional disparities and promoting balanced development to ensure the well-being of all citizens.

The development of the regions of Kazakhstan may differ in various parameters, such as economic growth, social indicators, infrastructure and accessibility of services, the level of education and healthcare, and others. Each region and city has its characteristics, for example, Astana is the capital of Kazakhstan and one of the country's critical administrative and economic centres. The city is actively developing within the framework of state programs to attract investment and create innovative infrastructure. Astana is home to government agencies, large corporations and high-tech enterprises. Moreover, Almaty is the largest city and economic center of Kazakhstan. It is known for its financial, commercial and investment opportunities. Almaty has a developed infrastructure, including a transport system, an international airport and high-quality educational and scientific institutions.

Western Kazakhstan is one of the country's industrial regions, where the oil and gas and chemical industries are developed. East Kazakhstan is known for its natural resources, including coal, oil, gas and metals. Southern Kazakhstan is one of the country's most significant regions with diverse economic potential. The region has developed an agricultural industry rich in natural resources, including coal, oil and gas. Northern Kazakhstan is known for its agricultural potential and industrial enterprises. The region has access to natural resources, including coal, oil and gas, and a developed transport infrastructure. Central Kazakhstan has a mixed economic profile, including agriculture, industry, and services. The region is also rich in natural resources, including coal, iron ore and copper.

It is important to note that these reviews are general and do not cover all aspects of the development of each region. The development of regions may change over time depending on the economic and political situation, government priorities and other factors. Therefore, this study is devoted to a comprehensive assessment of the regions of Kazakhstan.

To effectively assess trends in regional differences, this study uses a comprehensive set of indicators reflecting various aspects of development. In this study, the regions and cities of Kazakhstan will be evaluated according to 10 indicators, which are divided into three groups: financial and economic conditions, business development indicators and residents' standard of living. The analysis will be based on data for five years, from 2018 to 2022, as this period has yet to be explored. A five-year average for each indicator will be used. The assessment results will be presented as a rating, where each region will be awarded a certain number of points depending on its performance.

This study aims to evaluate Kazakhstan's regions and cities on various indicators through a rating system. Data analysis will identify regions with the most significant potential for investment and business development and problem areas that require additional support and stimulation. In addition, the study aims to identify regions that need special support measures to achieve a more even and sustainable country development.

The study results can serve as a basis for developing effective strategies and programs for developing regions aimed at improving the financial and economic condition, developing entrepreneurship and raising the population's standard of living throughout the country.

2. LITERATURE REVIEW

Regional disparities in economic development, business growth, and residents' standard of living have long been subjects of scholarly inquiry. Evaluating and understanding these regional and city-level trends are essential for policymakers and urban planners to promote balanced and sustainable development within a country. This literature review examines existing research on assessing trends in the development of regional differences, focusing specifically on cities. The assessment involves indicators divided into three groups: financial and economic conditions, business development indicators, and the standard of living of residents (Greene et al., 2007; Guaralda et al., 2020).

A region's financial and economic condition fundamentally determines its overall development. Researchers have utilized various indicators to assess this aspect. Tax collection is one commonly employed measure that provides insights into the revenue generation capacity of a region (Combes & Lafourcade, 2005; Tan et al., 2017; Łasak, 2022). The level of tax collection reflects the economic activity and productivity of businesses within the region, which in turn affects its capacity for public investment and resource allocation.

The national fund's revenues is another indicator used to evaluate a region's financial and economic condition. These revenues often come from natural resource extraction, such as oil, gas, or minerals, and can significantly impact regional development (Venables, 2016; Dwumfour & Ntow-Gyamfi, 2018). Regions with abundant natural resources tend to experience economic growth and attract investments in related industries. However, reliance on a single industry may also lead to vulnerability to commodity price fluctuations and hinder diversification efforts (Mousavi & Clark, 2021).

Assessing business development indicators provides valuable insights into a region's entrepreneurial ecosystem and economic vitality. Researchers have employed various measures to evaluate this aspect. One widely used indicator is the number and growth rate of small and medium-sized businesses (SMEs) within a region (Liu et al., 2022). SMEs are crucial in job creation, innovation, and local economic development. Higher numbers and robust growth of SMBs indicate a favourable business environment and potential for economic dynamism.

In addition to the number of SMEs, the diversity of industries within a region is another important indicator of business development (Islam & Wahab, 2021). Regions with a diverse industrial base are less vulnerable to economic shocks and more resilient to market fluctuations. The presence of various industries, including manufacturing, services, and knowledge-based sectors, stimulates innovation, fosters competition, and contributes to long-term economic sustainability.

Evaluating residents' standard of living provides insights into the quality of life within a region. Researchers have employed multiple indicators to assess this aspect. One standard measure is the average household income, which reflects the economic well-being of residents (Chyn & Katz, 2021). Higher household incomes generally indicate a higher standard of living, increased purchasing power, and better access to goods and services.

Another indicator used to assess the standard of living is the Human Development Index (HDI). The HDI combines life expectancy, education, and income measures to assess human well-being comprehensively. Regions with higher HDI scores tend to have better health outcomes, higher educational attainment, and greater access to resources and opportunities (Yumashev et al., 2020; Chen et al., 2023).

Assessing regional differences at the level of cities and regions is a complex task requiring various methods and approaches. Various methods are employed in different studies to assess the development of regional differences, including composite indices, spatial analysis, multivariate analysis, growth and convergence analysis, comparative case studies, and stakeholder surveys.

Composite indices have emerged as a popular method for capturing the multidimensional nature of regional disparities. Indices such as the Regional Development Index (RDI) and the Regional Competitiveness Index (RCI) integrate multiple indicators into a single measure, providing a holistic view of regional development (Chen et al., 2022; Ran et al., 2022). These composite indices aggregate data from different sources and dimensions, allowing for comparisons across regions and over time. Composite indices offer a comprehensive understanding of regional differences by considering economic, social, and environmental factors.

Spatial analysis techniques, including Geographic Information Systems (GIS) and spatial econometric models, have also been extensively used to assess regional differences. These methods consider the spatial distribution of indicators and identify clusters or spatial patterns of development (Yao et al., 2017; Ramos-Escudero et al., 2021). Spatial analysis helps understand the spatial interactions, agglomeration effects, and spillover mechanisms that shape regional disparities. By examining the geographical context, spatial analysis provides valuable insights into the spatial dimensions of regional development.

Growth and convergence analysis methods examine the dynamics of regional development over time. Researchers employ various approaches, including growth rate analysis, convergence analysis, and spatial econometric models, to understand whether regions are experiencing convergence or divergence in their development trajectories (Calero & Turner, 2020). Convergence analysis helps identify whether less developed regions are catching up with more developed regions or if disparities are widening. These methods provide insights into the temporal aspects of regional differences and can inform policies promoting balanced development.

Another valuable method used to assess regional differences is comparative case studies. Researchers gain insights into the specific factors contributing to regional disparities by conducting in-depth examinations of selected cities or regions. Comparative case studies analyze qualitative and quantitative data, including historical records, policy documents, interviews, and statistical indicators (Ceccato et al., 2021). These studies offer a rich understanding of regional development's contextual factors and provide valuable lessons for policymakers.

Stakeholder surveys among residents, businesses, and policymakers offer subjective perceptions of regional differences. These surveys capture stakeholders' views on the quality of infrastructure, access to services, business climate, and overall livability. The subjective experiences and perspectives obtained from stakeholder surveys complement the objective indicators used in other methods, providing a comprehensive understanding of regional disparities (van Langen et al., 2021).

Assessment of regional differences at the city and regional levels requires the application of various methods and approaches. Composite indices, spatial analysis, multivariate analysis, growth and convergence analysis, comparative case studies, and stakeholder surveys are among researchers' diverse methods. Each method contributes to our understanding of the multidimensional nature of regional development. Assessing trends in developing regional differences at the city level requires a comprehensive understanding of multiple indicators.

Evaluating the financial and economic condition, business development, and residents' standard of living provides valuable insights into regional disparities. By analyzing these indicators, policymakers and urban planners can identify areas of improvement, formulate targeted policies, and promote more balanced and sustainable development.

3. METHODOLOGY

In this study, regions and cities will be assessed according to 10 indicators, which are divided into three groups: financial and economic condition, business development indicators and the standard of living of residents (see Table 1).

TABLE 1. Estimated indicators

Indicator	Description	Coding	Measurement units	Source
Financial and economic condition	Receipts of payments and taxes to the budget, KZT	Tax_Budget	KZT	kgd.gov.kz
	Receipts of payments and taxes to the National Fund, KZT	Tax_NF	KZT	kgd.gov.kz
	Gross regional product (GRP) per capita, KZT	GRP	KZT	Stat.gov.kz
Business	Number of SMEs, pcs	Num_SME	unit	Stat.gov.kz
	Share of SMEs in GDP, %	Share_SME	%	Stat.gov.kz
	Investments in fixed assets, KZT	I_FA	KZT	Stat.gov.kz
	Retail trade, KZT	R_T	KZT	Stat.gov.kz
Social status and standard of living	Population growth, pers.	P_G	person	Stat.gov.kz
	Average salary, KZT	AS	KZT	Stat.gov.kz
	Population with income below the subsistence level, %	Pov_lev	%	Stat.gov.kz
<i>Note:</i> compiled by authors				

According to the estimated indicators, a rating was compiled for 17 regions of Kazakhstan, 14 of which are regions and three cities of Republican significance. The assessment uses data for five years, from 2018 to 2022. For some indicators, 2022 is not considered due to the absence. The rating does not include new regions: Abayskaya, Zhetysuskaya and Ulytauskaya, as there are no data. The estimated indicator is based on ten leading indicators characterizing the current state of 16 regions of Kazakhstan, including 14 regions and two cities of Republican significance.

The average value for each indicator for the study period was used. Next, a rating was built on a point system. Up to 10 points for each indicator were awarded to the region with the best result. The rest of the rating participants received a rating relative to the leader's indicator, proportionally reduced from the maximum score. In total, the regions could score a maximum of 100 points.

4. ANALYSIS AND RESULTS

Each region's contribution to the country's financial development was assessed through financial and economic condition assessment. Here we considered indicators of tax collection from each region, receipts of payments to the National Fund and gross regional product (GRP) per capita.

The leaders in receiving payments and taxes to the state budget are the cities of Almaty and Astana, where budget allocations have more than doubled. In addition, the top three include the

Atyrau region, where growth is also observed. These three regions account for more than 50% of all budget revenues. This is because Almaty and Astana cities have a diversified economic structure. Moreover, more than a million people live in these cities. In the Atyrau region, the main focus of the regional economy is the petrochemical industry, which naturally affects the amount of taxes collected. In the Figure 1 there is given data on budget allocations by regions of Kazakhstan for the study period from 2018 to 2022.

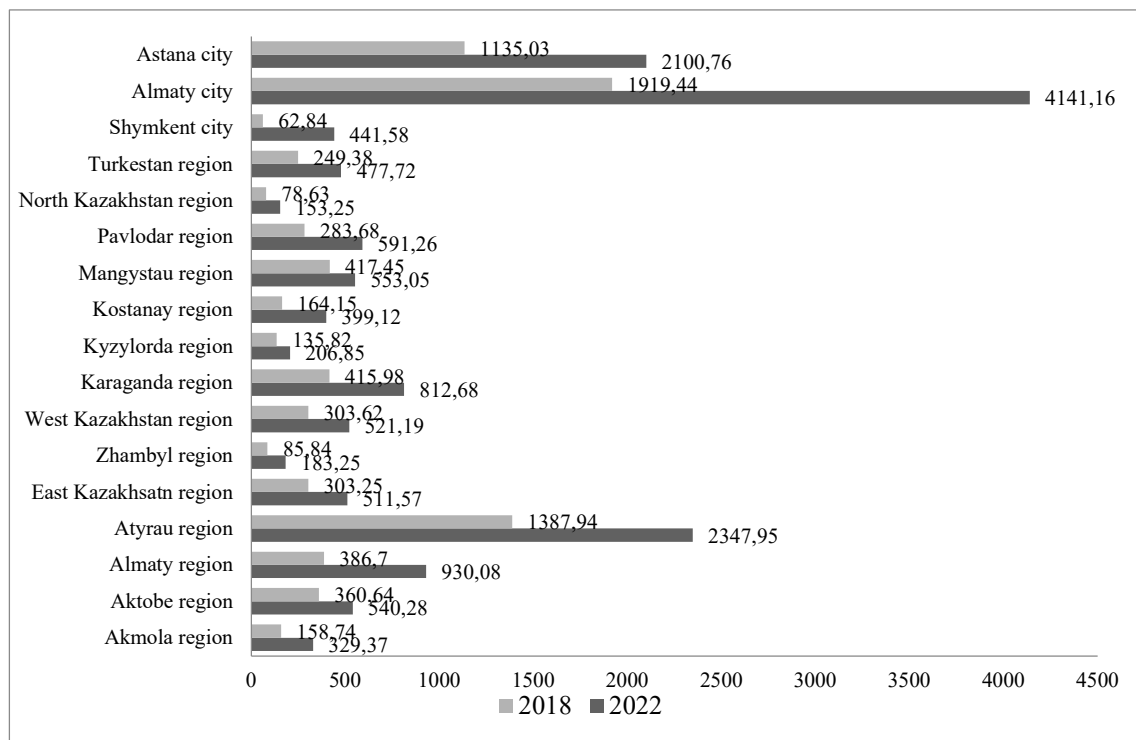


FIGURE 1. Receipts of taxes and payments to the state budget by regions for 2018 and 2022, bln. KZT

Note: compiled by authors from the Bureau of National Statistics (2022)

A comparative analysis of budget allocations by regions of Kazakhstan for the study period from 2018 to 2022 showed that the growth of budget allocations over five years is observed in Almaty and Astana cities, where budget allocations have more than doubled. In addition, Almaty and Astana cities are leaders in high budget allocations in all years. Also, significant growth in budget allocations is noticeable in the Atyrau and Aktobe regions, where budget allocations almost doubled from 2018 to 2022. The regions with constant growth include the Karaganda and East Kazakhstan regions (EKR), which show stable annual growth in budget allocations. Regions with variable dynamics include the Almaty and West Kazakhstan regions. In these regions, fluctuations in amounts are observed in different years. Regions with relatively low budget allocations include Zhambyl, Kostanay, and Kyzylorda regions, which have relatively low budget allocations compared to other regions.

The overall trend in the data suggests that Almaty and Astana are the country's leading financial centers with the highest budget allocations. However, other regions also receive significant funds for development.

Other regions, such as the Atyrau, Aktobe, and Karaganda regions, also receive significant budget funds. This is due to various factors, including the availability of natural resources (e.g. the oil and gas industry in Atyrau Region), industrial and economic facilities (e.g. metallurgical production in Karaganda Region), and national development programs.

However, some regions, such as Zhambyl region, Kostanay region and Kyzylorda region, have lower budget allocations. This may be due to less industrialization and smaller economies in these regions. In general, the comparative analysis shows that budget allocations are distributed depending on each region's strategic and economic importance. Next, in Table 2 there is presented the dynamic on tax revenues and payments to the state budget by regions.

TABLE 2. Scoring of tax revenues and payments to the state budget by regions from 2018 to 2022, thousand KZT

Region	2018	2019	2020	2021	2022	Share, %	Score
Akmola	158744533	194949731	233648856	257230744	329372996	2,2	0,9
Aktobe	360644526	400817233	312246191	376682612	540278475	3,8	1,5
Almaty	386695709	509323119	561879386	773757341	930082549	6,0	2,3
Atyrau	1387939198	1765626552	1243520012	1528845972	2347953788	15,7	6,1
East Kazakhstan	303253974	368114880	543503875	413420102	511569594	4,1	1,6
Zhambyl	85837607	98253372	113301549	145123013	183246556	1,2	0,5
West Kazakhstan	303620541	371002961	639034658	358298166	521192008	4,2	1,6
Karaganda	415984479	430984486	397360483	695327725	812683919	5,2	2,0
Kyzylorda	135824347	157295031	135676993	163101546	206846338	1,5	0,6
Kostanay	164145200	217271212	237842723	294281295	399117032	2,5	1,0
Mangistau	417452752	506808245	323120347	420185731	553053612	4,2	1,6
Pavlodar	283678322	298229477	351162190	421644281	591257798	3,7	1,4
North Kazakhstan	78625414	86164700	101292881	118921626	153249981	1,0	0,4
Turkestan	249379346	194624995	235791919	307958271	477718503	2,8	1,1
Shymkent city	62839758	196564513	241475308	291351852	441584640	2,3	0,9
Almaty city	1919440471	2224988767	2290049006	2913443807	4141163903	25,6	10,0
Astana city	1135028885	1277464496	1422910239	1441361207	2100755736	14,0	5,5

Note: compiled by authors from the Bureau of National Statistics (2022)

The current structure of tax revenues leads to the emergence of donor and recipient regions, which, in turn, is fraught with the dependence of individual regions on transfers from the state budget. This situation affects the level of independence of budgets, which, according to the strategic guidelines of the head of state, need to be increased, and, accordingly, to refuse to provide transfers.

The composition of the top three in terms of gross regional product per capita was identical to the previous indicator. In the Atyrau region, GRP per person for the nine months of 2017 amounted to 6.27 million KZT, an increase of 16.3% from last year. In Almaty city, 4 million KZT of GRP was produced per person, in the capital - 3.89 million KZT.

Representatives of Western Kazakhstan mainly provide the stability of the country's social and economic development. Thus, the most significant amount of tax deductions to the National Fund of the Republic of Kazakhstan in 2017 came from Atyrau (1.15 trillion KZT), Mangistau (388.2

billion KZT) and West Kazakhstan (269.03 billion KZT) regions. According to this indicator, Astana city was in the red in the amount of 6.65 billion KZT.

Consider the data of the gross regional product in the context of the regions of Kazakhstan. The East Kazakhstan region demonstrates the highest growth rate, the volume of GRP, which increased by 142% over the seven years under study compared to the indicators of the base year, 2018. Also, among the leading regions that showed growth of over 100%, one can note such regions as Karaganda (122), Kostanay (131) and North Kazakhstan regions (123), Turkestan region (127), as well as the city of Shymkent.

In cities of republican significance, there is a decrease in GRP per capita by 20% or more. In Astana city, the decrease is 27%. The highest indicator for the nine months of 2022 is in the Atyrau region - 13,145 thousand KZT, two times more than in Astana and Almaty cities. Moreover, the lowest indicator is in the Zhambyl region - 1372.5 thousand KZT.

Taxes received by the National Fund of the Republic of Kazakhstan include some direct taxes from organizations in the oil sector (except taxes credited to local budgets), such as CIT, excess profit tax, mineral extraction tax, bonuses, production sharing share, rent tax on exports and an additional payment by a subsoil user operating under a production sharing contract. Table 3 presents the scoring of tax revenues and payments to the National Fund in regions of Kazakhstan.

TABLE 3. Scoring of tax revenues and payments to the National Fund by region from 2018 to 2022, thousand KZT

Region	2018	2019	2020	2021	2022	Growth	Score
Akmola	9094	6412	9497	11175	7861	86%	0
Aktobe	173910533	146346190	92002979	118223299	219902795	126%	0,953
Almaty	170899	149461	200451	162197	48911	29%	0,0009
Atyrau	1444398443	1241131874	516937719	1047884117	3621196760	251%	10
East Kazakhsan	5260760	3681389	1764383	3301494	3173434	60%	0,0218
Zhambyl	34435	16841	26829	11679	7747	22%	0,0001
West-Kazakhstan	680383138	582884771	381285716	715551212	1386929980	204%	4,76
Karaganda	6512	5204	6382	4463	3696	57%	0
Kyzylorda	163144859	174555501	87050485	73628611	153318480	94%	0,82
Kostanay	0	0	308	0	2167	-	0
Mangistau	653511254	625106066	278619145	576515364	895186933	137%	3,8
Pavlodar	323	1534	129	0	3173	982%	0
North Kazakhstan	2238	0		0	0	0%	0
Turkestan	9176968	9977432	2895803	2124470	11805614	129%	0,04
Shymkent city	0	349	202	0	1572	-	0
Almaty city	7746085	11138719	4614500	5622048	16724043	216%	0,06
Astana city	74081742	64414099	35096341	70016959	94237604	127%	0,43

Note: compiled by authors from the Bureau of National Statistics (2022)

The volume of receipts to the National Fund in 2022 amounted to 64 trillion KZT, which increased by 99% compared to 2018.

There is more than a twofold increase in revenues in four regions, which include Pavlodar (982%), Atyrau (251%), West Kazakhstan (204%) regions and the city of Almaty (216%). Modernization was completed at the Pavlodar petrochemical plant, which affected the volume of tax revenues from the oil and gas sector of the region. In West Kazakhstan region, in 2017, the development of a new field began.

Thus, the leading position in the financial and economic segment is occupied by the Atyrau region.

In ranking the best countries for entrepreneurship according to US News & World Report in 2021, Kazakhstan was in 75th place out of 78. The assessment of the level of entrepreneurship development in the republic was only 0.9 points out of 100. Kazakhstan was rated low on all points of the rating.

The number of SMEs can track the state of the business climate in the region. In 2022, the share of small and medium-sized businesses in Kazakhstan's GDP reached 33.5%. Over the past ten years, the number of SMEs in the country has doubled - from 763.8 thousand to 1.6 million enterprises. Moreover, as of March 1, 2018, the most significant number of small and medium-sized businesses (15.4%) was registered in the South Kazakhstan region - 179.55 thousand units, 90.3% of them are individual entrepreneurs and farms. In Almaty city, 172.63 thousand representatives of SMEs were registered. Almaty region is among the top three, where 110.81 thousand SMEs are registered (see Table 4).

TABLE 4. Number of active small and medium businesses for 2018-2022

Region	2018	2019	2020	2021	Growth	Score
Akmola	44 106	45 453	46 564	48 544	110%	2,40
Aktobe	54 430	59 116	61 797	65 992	121%	3,14
Almaty	115 630	122 368	123 181	129 716	112%	6,39
Atyrau	46 756	49 917	50 239	52 031	111%	2,59
West Kazakhstan	40 062	42 785	43 035	44 260	110%	2,22
Zhambyl	63 262	69 961	69 338	71 298	113%	3,57
Karaganda	84 032	88 299	90 196	95 296	113%	4,66
Kostanay	51 093	52 516	52 495	54 870	107%	2,75
Kyzylorda	42 342	46 297	48 657	51 063	121%	2,45
Mangistau	51 096	52 949	52 900	56 521	111%	2,78
Pavlodar	43 820	45 482	45 809	46 694	107%	2,37
North Kazakhstan	28 969	30 071	30 331	30 228	104%	1,56
Turkestan	130 804	141 992	140 605	144 778	111%	7,27
East Kazakhstan	87 678	88 938	90 453	95 916	109%	4,73
Astana city	124 685	134 475	144 769	163 017	131%	7,38
Astana city	174 509	190 190	197 066	206 109	118%	10,00
Shymkent city	58 054	69 435	69 876	75 314	130%	3,55

Note: compiled by authors from the Bureau of National Statistics (2022)

One of the essential components of the characteristics of entrepreneurship is to determine the degree of participation in the formation of the gross regional product of small and medium-sized businesses, as this category of business today serves as a powerful lever for economic development.

As for the regions, it can be seen that the most significant percentage of participation of small and medium-sized businesses is observed in the capital of the republic, Astana, Almaty and the West Kazakhstan region, where the share of these categories of entrepreneurship is 59.0%, 47.5% and 40.5%, respectively, of the total volume of GRP produced in 2021 (see Table 5).

TABLE 5. The share of small and medium-sized businesses in the gross regional product of the region of Kazakhstan

Region	2018	2019	2020	2021	Growth	Average	Score
Akmola	30,8	28,5	27,1	26,8	87%	28,3	5,09
Aktobe	20,7	20,5	23,8	24,5	118%	22,4	4,02
Almaty	32,0	32,5	32,4	37,0	116%	33,5	6,02
Atyrau	18,7	22,2	19,5	24,1	129%	21,1	3,80

West Kazakhstan	36,0	36,8	34,1	33,4	93%	35,1	6,31
Zhambyl	20,9	20,9	26,5	25,9	124%	23,6	4,24
Karaganda	17,2	17,2	17,9	17,9	104%	17,6	3,16
Kostanay	29,4	30,7	31,5	28,6	97%	30,1	5,40
Kyzylorda	16,9	16,8	17,6	18,3	108%	17,4	3,13
Mangistau	16,8	23,5	29,4	31,4	187%	25,3	4,55
Pavlodar	16,2	18,8	18,8	18,4	114%	18,1	3,25
North Kazakhstan	29,7	31,4	31,5	31,4	106%	31,0	5,58
Turkestan	19,5	23,1	24,4	30,8	158%	24,5	4,40
East Kazakhstan	18,0	19,0	20,0	20,5	114%	19,4	3,48
Astana city	48,6	57,9	56,8	59,0	121%	55,6	10,00
Astana city	40,1	40,5	49,2	47,5	118%	44,3	7,97
Shymkent city	25,6	31,2	31,8	40,5	158%	32,3	5,80
<i>Note:</i> compiled by authors from the Bureau of National Statistics (2022)							

In total, in the field of small and medium-sized businesses in the last year under study, more than 17 trillion KZT were produced, of which almost 14 are accounted for by small businesses. Minor participation and, accordingly, the development of small and medium-sized businesses are observed in such regions as Karaganda, Pavlodar, Kyzylorda, and East Kazakhstan, where this share is about 18-20% of the total GRP of the region.

The most attractive industry for investment in Kazakhstan remains mining and quarrying, which explains the high level of investment in fixed assets in Atyrau region, which reached 3.03 trillion KZT in 2022. But compared to 2018, it decreased by 18% (see Table 6).

TABLE 6. Investments in fixed assets by region of Kazakhstan, in billion KZT

Region	2018	2019	2020	2021	2022	Growth	Score
Akmola	278 177	333 723	436 633	514 683	420 405	151%	1,16
Aktobe	516 893	598 864	648 036	817 136	566 555	110%	1,84
Almaty	578 720	647 330	682 407	733 426	959 127	166%	2,10
Atyrau	3691401	4328236	3178960	2910114	3030 083	82%	10,00
West Kazakhstan	450 382	586 265	481 485	428 742	609 124	135%	1,49
Zhambyl	264 520	296 398	350 068	398 609	501 155	189%	1,06
Karaganda	489 030	811 433	692 347	796 866	423 077	87%	1,87
Kostanay	249 340	288 737	336 599	431 179	269 674	108%	0,92
Kyzylorda	332 655	400 209	292 344	308 941	724 871	218%	1,20
Mangistau	504 649	556 558	582 279	629 138	486 491	96%	1,61
Pavlodar	411 958	494 620	487 154	571 927	409 484	99%	1,39
North Kazakhstan	214 181	234 490	286 252	333 149	762 203	356%	1,07
Turkestan	314 114	443 503	705 722	659 114	698 220	222%	1,65
East Kazakhstan	494 597	621 913	729 115	834 080	366 671	74%	1,78
Astana city	1067455	919 107	1125211	1225027	739 521	69%	2,96
Almaty city	732 930	820 449	976 795	1187620	155 664	21%	2,26
Shymkent city	588 034	194 958	278 737	462 482	545 408	93%	1,21
<i>Note:</i> compiled by authors from the Bureau of National Statistics (2022)							

Table 6 shows that the total share of small and medium-sized businesses in the reporting year is approximately 33.5%, while there is a slight growth trend. Moreover, it is essential to note that the share of small businesses is predominant, almost four times higher than that of medium-sized businesses.

In Astana city, the volume of investments for the year reached 739.5 billion KZT. In Almaty city, the figure was 155.6 billion KZT, the lowest in all regions in 2022. The least of all investments were made in Kostanay (269.6 billion KZT) and East Kazakhstan region (366.6 billion KZT) regions. In total, 15 trillion KZT was invested in fixed assets throughout the country over the past year. Next, in Table 7 there is presented dynamics on retail trade by regions in for the period 2018-2021.

TABLE 7. Retail trade by regions for 2018-2021, KZT

Region	2018	2019	2020	2021	Growth, %	Score
Akmola	298855,60	318836,90	271455,60	298010,30	1,00	0,87
Aktobe	525743,90	550263,60	615305,80	722327,80	1,37	1,76
Almaty	511802,10	556468,00	516273,90	567851,10	1,11	1,57
Atyrau	305715,70	341157,60	349332,20	388333,10	1,27	1,01
West Kazakhstan	292838,80	313810,30	312456,60	380180,80	1,30	0,95
Zhambyl	302643,00	323653,30	332075,90	370681,70	1,22	0,97
Karaganda	880040,80	997074,80	1060009,80	1168145,60	1,33	2,99
Kostanay	360410,30	403970,20	435936,40	506457,00	1,41	1,24
Kyzylorda	267252,10	291314,40	311934,20	346996,50	1,30	0,89
Mangistau	234666,50	252619,20	266956,30	332583,70	1,42	0,79
Pavlodar	379174,70	407348,10	434934,50	477588,50	1,26	1,24
North Kazakhstan	261554,30	279805,50	242068,90	301524,80	1,15	0,79
Turkestan	177561,70	198002,20	202339,00	241854,60	1,36	0,60
East Kazakhsan	892043,10	1010269,70	1081804,20	1274561,50	1,43	3,11
Astana city	1143750,30	1267529,90	1369472,90	1692678,00	1,48	3,99
Almaty city	2851679,60	3382739,00	3431679,10	4044492,90	1,42	10,00
Shymkent city	360039,80	432717,90	495914,40	595053,70	1,65	1,37

Note: compiled by authors from the Bureau of National Statistics (2022)

The indicators of retail trade demonstrate the activity of entrepreneurship in the region. So, almost a third of the total retail trade of the republic in 2022 was in Almaty city. The trade volume here amounted to 4.04 trillion KZT (30%), 12%, or 1.6 trillion KZT, falls on Astana city and 9%, or 1.2 trillion KZT - in East Kazakhstan. The most significant increase in the indicator for the study period is observed in Shymkent - 65%, the smallest - in Akmola region (0%)

Surprisingly, in the Atyrau region, with the highest income level of the population, there is a trim level of retail trade - 388.3 million KZT per person, or 257.78 billion KZT in total. As a result, in the "business" segment, the cities of Almaty and Astana took the first place.

Consider the third group of indicators - the population's standard of living or social indicator.

According to the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan, at the beginning of 2022, the population of Kazakhstan reached 19,503,159 people. The country's number of inhabitants has grown during the study period by 1345822 people, and the increase is 7%.

The population growth trend in the whole country has strengthened, and it is based more on natural population growth, not migration processes. However, the regional dynamics of the population of Kazakhstan are characterized by significant differentiation.

Most of the country's population is growing steadily due to high natural increase. At the same time, in large economic centres - the cities of Astana and Almaty and the western regions - population growth occurs due to natural and migration inflows.

Thus, the most significant population growth among the regions of Kazakhstan is observed in Astana city - 26%. Population growth continues in the country's largest city, Almaty; over the year, it has grown by 17%, including 29.97 thousand people due to migration.

Most people live in the Turkestan region - 2.02 million. Growth over five years is 6%.

At the same time, the population of the northern, eastern, and central regions continues to decrease since the negative balance of migration, primarily interregional, overlaps the positive natural increase. Thus, in five regions of Kazakhstan, including East Kazakhstan, North Kazakhstan, Kostanay, and Karaganda regions, there is a population decline.

The average salary in Kazakhstan in the fourth quarter of 2022 was 299 thousand KZT. Differences in wages in Kazakhstan are significant - they, as a rule, reflect the level and specifics of the development of the country's regions. In Table 8 there is provided data on average monthly salary dynamics by regions for the period 2018-2021.

TABLE 8. Average monthly salary in the regions of Kazakhstan for 2018-2021, KZT

Region	2018	2019	2020	2021	2022	Growth	Average	Score
Akmola	121 361	140 272	168 302	203 006	240 576	198%	174 703	4,53
Aktobe	137 039	156 595	182 923	217 597	264 168	193%	191 664	4,97
Almaty	115 101	136 212	168 313	207 592	257 430	224%	176 930	4,59
Atyrau	293 572	351 103	367 799	406 166	509 600	174%	385 648	10,00
West Kazakhstan	153 782	183 914	195 410	226 537	265 683	173%	205 065	5,32
Zhambyl	109 720	127 043	156 846	195 922	231 420	211%	164 190	4,26
Karaganda	149 916	172 239	203 806	240 608	272 561	182%	207 826	5,39
Kostanay	125 995	145 890	171 319	201 923	239 684	190%	176 962	4,59
Kyzylorda	130 391	152 085	178 174	212 777	263 695	202%	187 424	4,86
Mangistau	275 679	294 099	317 611	349 503	441 458	160%	335 670	8,70
Pavlodar	141 915	160 670	187 427	220 291	261 498	184%	194 360	5,04
North Kazakhstan	110 686	130 233	157 497	187 501	222 558	201%	161 695	4,19
Turkestan	104 136	123 853	158 762	195 302	235 943	227%	163 599	4,24
East Kazakhsan	140 126	162 182	190 287	224 700	276 207	197%	198 700	5,15
Astana city	240 320	266 796	302 504	344 691	387 744	161%	308 411	8,00
Almaty city	200 919	224 158	247 951	295 985	339 484	169%	261 699	6,79
Shymkent city	115 574	136 995	161 329	193 682	229 889	199%	167 494	4,34

Note: compiled by authors from the Bureau of National Statistics (2022)

The leaders in terms of nominal wages remain highly developed regions: raw materials export-oriented regions - Atyrau and Mangicassstau regions with an average monthly salary of 385.6 thousand KZT and 335.6 KZT, respectively, and the financial and economic centres of Astana and Almaty (308.4 thousand KZT and 261.7 thousand KZT, respectively).

The decline in the purchasing power of income is more acutely felt by the socially vulnerable segments of the population. The highest poverty level is observed in the country's southern regions. Thus, in the Turkestan region, according to the results of the study period, the share of the population with an income below the subsistence level was 10.4%, and in the city of Shymkent, 4.4%. In the Mangistau region, despite the high average wages, the share of the population with incomes below the subsistence level reached 5.7%. The Zhambyl region also excelled here, where the figure was 5.4% (see Table 9).

Table 9. Share of the population with incomes below the subsistence level, %

Region	2018	2019	2020	2020	2021	2022	Growth	Average	Score
Akmola	4,6	4,4	5,1	5,1	5,7	5,9	128%	5,1	4,9
Aktobe	3,1	3,2	3,8	3,8	3,9	4,3	136%	3,7	3,5
Almaty	3,6	3,2	3,8	3,8	4,2	3,6	101%	3,7	3,6
Atyrau	2,6	2,8	3,0	3,0	3,4	3,3	126%	3,0	2,9
West Kazakhstan	3,2	3,8	4,0	4,0	4,1	4,2	129%	3,9	3,7
Zhambyl	4,9	5,2	6,0	6,0	5,1	5,1	105%	5,4	5,2
Karaganda	2,3	2,2	2,5	2,5	2,7	3,2	138%	2,5	2,4

Kostanay	3,7	3,2	3,6	3,6	3,5	4,3	118%	3,6	3,5
Kyzylorda	4,9	4,4	5,7	5,7	4,9	4,9	100%	5,1	4,9
Mangistau	5,0	4,3	5,4	5,4	6,4	7,7	154%	5,7	5,5
Pavlodar	3,4	4,1	4,4	4,4	4,0	3,9	115%	4,0	3,9
North Kazakhstan	4,9	5,1	6,6	6,6	5,1	5,7	116%	5,7	5,4
Turkestan	11,1	10,5	11,0	11,0	9,5	9,1	82%	10,4	1
East Kazakhstan	5,0	5,2	5,3	5,3	4,9	4,6	92%	5,0	4,8
Astana city	0,9	1,1	1,5	1,5	2,3	2,0	229%	1,5	10
Almaty city	2,8	2,5	4,7	4,7	4,7	4,4	160%	3,9	3,8
Shymkent city	2,7	3,0	4,7	4,7	5,3	6,4	240%	4,4	4,3
<i>Note:</i> compiled by authors from the Bureau of National Statistics (2022)									

The lowest poverty level in Kazakhstan is recorded in Astana city, where 1.5% of the population has an income below the subsistence level. This figure was 3.9% in Almaty city, in the Karaganda region - 2.5%.

As a result, in the segment of social development and living standards, the city of Astana was the first. Next, in Table 10 there are provided calculations on indicators for each region.

Table 10. Calculations on indicators for each region, score

Region	Financial and economic indicators			Business development				Social indicators			Score
	Tax_Budget	GRP	Tax_NF	Num_SME	Share_SME	I_FA	R_T	P_G	AS	Poverty	Total
Akmola	0,9	2,1	0	2,40	5,09	1,16	0,87	3,69	4,53	4,9	25,6
Aktobe	1,5	2,5	0,953	3,14	4,02	1,84	1,76	4,37	4,97	3,5	28,6
Almaty	2,3	1,3	0,0009	6,39	6,02	2,10	1,57	9,56	4,59	3,6	37,4
Atyrau	6,1	10,0	10	2,59	3,80	10,00	1,01	3,20	10,00	2,9	59,6
West Kazakhstan	1,6	3,3	4,76	2,22	6,31	1,49	0,95	3,26	5,32	3,7	32,9
Zhambyl	0,5	1,2	0,0001	3,57	4,24	1,06	0,97	5,66	4,26	5,2	26,7
Karaganda	2,0	3,1	0	4,66	3,16	1,87	2,99	6,57	5,39	2,4	32,1
Kostanay	1,0	2,3	0	2,75	5,40	0,92	1,24	4,27	4,59	3,5	26,0
Kyzylorda	0,6	1,6	0,82	2,45	3,13	1,20	0,89	3,98	4,86	4,9	24,4
Mangistau	1,6	3,6	3,8	2,78	4,55	1,61	0,79	3,46	8,70	5,5	36,4
Pavlodar	1,4	3,0	0	2,37	3,25	1,39	1,24	3,73	5,04	3,9	25,3
North Kazakhstan	0,4	2,0	0	1,56	5,58	1,07	0,79	2,71	4,19	5,4	23,7
Turkestan	1,1	0,8	0,04	7,27	4,40	1,65	0,60	10,00	4,24	1	31,1
East Kazakhstan	1,6	2,4	0,0218	4,73	3,48	1,78	3,11	6,16	5,15	4,8	33,2
Astana city	10	4,7	0,43	7,38	10,00	2,96	3,99	5,66	8,00	10	63,1
Almaty city	5,5	4,9	0,06	10,00	7,97	2,26	10,00	9,55	6,79	3,8	60,8
Shymkent city	0,9	1,6	0	3,55	5,80	1,21	1,37	5,18	4,34	4,3	28,3
<i>Note:</i> compiled by authors from the Bureau of National Statistics (2022)											

As a result of the analysis of the ten above indicators, Astana city occupies the leading position with a final score of 63.1 out of 100, Almaty city and Atyrau region took the second and third places.

Astana, the capital of Kazakhstan, also enjoys a high level of budget allocation. This is due to the city's strategic importance as the center of the country's political, administrative and economic activities. Moreover, Almaty, the capital of Kazakhstan's economic and cultural life, has the highest budget allocations in all years. This is due to significant investments in various projects, infrastructure and social programs aimed at city development.

Atyrau region is the center of the petrochemical industry, which is the basis of the economy of Kazakhstan. The lowest indicator is in the North Kazakhstan region - 23.7 points, followed by Kyzylorda region (24.4) and Pavlodar region (25.3).

6. CONCLUSION

The analysis showed that neither a region nor a city scored 100 points in Kazakhstan. Moreover, there is a big gap between regions. The gap between the maximum score (63.1) and the minimum (23.7) is almost 40 points.

In addition, the study results showed that the level of development of the regions of Kazakhstan is different among themselves for all the studied indicators. There are different leaders for different groups of indicators, but mostly these are the Astana, Almaty and Atyrau region cities.

Astana (the capital of the country) and Almaty (the largest city) these regions have a developed infrastructure, an active business community, a wide range of services and a high level of economic activity. In addition, the cities of Almaty and Astana are the leading financial centres of the country, but other regions also receive significant funds for development.

The following leaders are Atyrau and Mangistau regions, the centres of the oil and gas industry and have a high-income level and investment in this industry.

However, some regions in the country face development challenges, especially in remote and rural areas. These include North Kazakhstan, Kyzylorda, and Pavlodar regions. These regions suffer from a lack of infrastructure, limited employment and economic development opportunities, and poor availability of social services.

It is important to note that there is inequality between regions, and some regions become donors, while others become recipients of funds from the state budget. This may affect the independence of budgets and the need to increase their self-financing.

Thus, based on the analysis, the cities of Almaty and Astana and regions with high budget allocations, such as the Atyrau region, are essential for Kazakhstan's financial and economic development. However, to achieve a more even and sustainable country development, focusing on regions with low budget allocations and taking measures to stimulate their economic growth is necessary.

Kazakhstan's government is trying to balance regions' development and reduce inequalities. This includes programs and investments in various sectors of the economy, infrastructure, social services, and education to contribute to the sustainable development of all regions of the country.

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