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Impact of the Pandemic on the Socio-Economic Development of Kazakhstan

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Abstract

COVID-19 has affected all aspects of public life, sectors of the national economy, and the standard of living of the population in both positive and negative directions. The government of Kazakhstan played a significant role in reducing the negative consequences of the pandemic on the socio-economic situation of the population by implementing state support measures. However, systemic social problems, both globally and nationally, have not been resolved. The World Health Organization was not ready for the global coronavirus crisis. The search in the global world for ways to combat new modifications of the viral epidemic remains relevant. The global community must be prepared for unexpected viral diseases. The purpose of the study is to conduct a qualitative analysis of the main changes in the socio-economicsphere of Kazakhstan associated with the spread of coronavirus in the world in order to determine the necessary socio-economic and institutional processes and impacts that can have a significant impact on society in the long term. The article highlights social problems, the solution of which will contribute to the development of human capital and the economic growth of the country. Complex methods of systemic and empirical analysis were used in this article. Analysis of socio-economic development confirmed the proposed hypotheses. As a result of the study, the features of the socio-economic development in the current situation are determined. An attempt has been made to identify the main trends, and processes necessary for fundamental changes in the socio-economic life of the country in the post-pandemic period.

Keywords: Pandemic, Economy, Employment, Entrepreneurship, Social Protection.

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Пандемияның Қазақстанның әлеуметтік-экономикалық дамуына әсері

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Түйін

COVID-19 қоғамдық өмірдің барлық аспектілеріне, ұлттық экономиканың салаларына, халықтың өмір сүру деңгейіне оң және теріс бағытта әсер етті. Қазақстан үкіметі мемлекеттік қолдау шараларын жүзеге асыру арқылы індеттің халықтың әлеуметтік-экономикалық жағдайына тигізетін жағымсыз салдарын азайтуда маңызды рөл атқарды. Дегенмен, жаһандық және ұлттық деңгейде жүйелі әлеуметтік мәселелер шешімін тапқан жоқ. Дүниежүзілік денсаулық сақтау ұйымы жаһандық коронавирустық дағдарысқа дайын болмады. Жаһандық әлемде вирустық індеттің жаңа модификацияларымен күресу жолдарын іздеу өзекті болып қала береді. Әлемдік қауымдастық күтпеген вирустық ауруларға дайын болуы керек. Зерттеудің мақсаты – ұзақ мерзімді перспективада қоғамға айтарлықтай әсер етуге қажетті әлеуметтік-экономикалық және институционалдық процестер мен салдарларды анықтау үшін әлемде коронавирустың таралуына байланысты Қазақстанның әлеуметтік- экономикалық саласындағы негізгі өзгерістерге сапалы талдау жүргізу. Мақалада шешуі адами капиталды дамытуға және елдің экономикалық өсуіне ықпал ететін әлеуметтік мәселелерге ерекше назар аударылған. Мақаланы дайындауда жүйелік және эмпирикалық талдау әдістерінің кешені пайдаланылды. Әлеуметтік-экономикалық дамуды талдау алға қойылған болжамдарды растады. Зерттеуде талдау негізінде еліміздің қазіргі жағдайдағы әлеуметтік-экономикалық даму ерекшеліктері айқындалады. Пандемиядан кейінгі кезеңде елдің әлеуметтік-экономикалық өміріндегі түбегейлі өзгерістерге қажетті негізгі үрдістер мен процестерді анықтауға әрекет жасалды.

Түйін сөздер: пандемия, экономика, жұмыспен қамту, кәсіпкерлік, әлеуметтік қорғау.

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Влияние пандемии на социально-экономическое развитие Казахстана

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Аннотация

COVID-19 оказал влияние на все аспекты общественной жизни, отрасли национального хозяйства, на уровень жизни населения как в позитивном, так и негативном направлениях. Значительную роль в снижении негативных последствий пандемии на социально-экономическое положение населения сыграло правительство Казахстана, осуществляя меры государственной поддержки. Однако системные социальные проблемы как в глобальном, так и в национальном масштабе нерешены. Всемирная организация здравоохранения не была готова к охватившему весь мир коронавирусному кризису. Актуальным остается поиск в глобальном мире путей борьбы с новыми модификациями вирусной эпидемии. Мировое сообщество должно быть готово к неожиданным вирусным заболеваниям. Целью исследования является проведение качественного анализа основных изменений в социально-экономической сфере Казахстана, связанных с распространением коронавируса в мире для определения необходимых социально-экономических и институциональных процессов и воздействий, способных оказать существенное влияние на общество в долгосрочной перспективе. В статье особое внимание уделено социальным проблемам, решение которых будет способствовать развитию человеческого капитала и экономическому росту страны. При подготовке статьи использовался комплекс методов системного и эмпирического анализа. Анализ социально-экономического развития подтвердил выдвинутые гипотезы. В исследовании на основе анализа определены особенности социально-экономического развития страны в нынешней ситуации. Сделана попытка выявления основных тенденций и процессов, необходимых для фундаментальных изменений социально-экономической жизни страны в постпандемийный период.

Ключевые слова: пандемия, экономика, занятость, предпринимательство, социальная поддержка.

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Introduction

Many countries of the world faced a situation caused by the coronavirus infection COVID-19, which showed the absence of a universal system of social assistance for citizens or an effective healthcare and education system. The researchers of the coronavirus epidemic are discussing the long-lasting consequences of the pandemic on the global economy. Even before the coronavirus epidemic, there were substantial problems in the labor market in the world. In 2020, 57% of the world's working-age population (3.3 billion people: 1.3 billion women and 2 billion men) were employed, while 188 million remained unemployed (Policy Brief: The world of work and COVID-19, 2020).

The unexpected and rapid spread of the COVID-19 pandemic in the shortest possible time created an emergency in the health care system, education, and labor market and several sectors of Kazakhstan's economy. The Government of Kazakhstan has taken emergency measures to combat the pandemic since the first days of the virus's spread. On the one hand, a substantial amount of funding was allocated to the healthcare system, the pharmaceutical industry, and the development of tests and vaccines. A Kazakh vaccine was developed. Restrictive measures such as quarantine and self-isolation were introduced. Borders with foreign countries were closed. Additionally, the government provided financial support to the unemployed, supported those workers whose incomes decreased due to restrictive measures, took several measures to support businesses by reducing taxes, etc.

At the same time, pandemic researchers find it difficult to determine the impact of the COVID-19 virus in the coming years. According to researchers, another viral modification in the world is inevitable. And states should act similarly way to the actions they have taken before. Since the pandemic has changed the paradigm of people's lives and society in general, it is necessary to determine the directions for further transformation. The study's novelty lies in the presentation of the post-pandemic world and the identification of the course of the state's socio-economic development. These questions are the most relevant today in this research scope.

This study aims to analyze the pandemic's impact on the socio-economic condition of Kazakhstan's citizens and their living standard and develop recommendations to combat its negative consequences. The study hypothesizes that (1) the pandemic had an impact on the socio-economic development of Kazakhstan in general; (2) the state is taking the necessary measures to mitigate

the consequences of the pandemic, but they are not enough. The article analyzes the impact of the pandemic on the country and attempts to propose support measures in the post-pandemic world.

The scientific significance of the study lies in the systematization of the obtained research materials and the expansion of existing knowledge through empirical data to determine the current state of the socio-economic sphere of Kazakhstan.

The practical significance refers to the fact that government agencies can use the results and recommendations obtained during the study in the fight against accumulated problems in the economic and social environment due to the pandemic.

Literature review

The self-isolation and quarantine measures accompanying the pandemic had an impact on the quality of life. As a positive impact, one can note the reduction in harmful emissions into the atmospheric air, water resources, and soil. Also, the development of local businesses, domestic tourism, and crime reduction are cases in point. Quarantined and self-isolated people paid attention to online games, increasing the turnover of this industry.

As the analysis of literary sources shows, foreign researchers pay more attention to the health care system, not only to the physiological but also to the psychological state of the health of citizens. During the pandemic, there have been drastic changes in people's modern lifestyles and work habits due to the psychological impact (Balanzá-Martínez et al., 2020). An interesting question is about the "digital divide", which is associated with access to the Internet. It has been noted that people may not have access to technology during a pandemic for reasons other than income (Bennett Gayle et al., 2021). A study aimed at examining the perceptions of teachers and students of the transition to emergency distance learning identified barriers and ways of supporting education (Donham et al., 2022). A study on the effectiveness of educational technologies during distance education notes that quarantine affected the academic performance, emotional status, and educational level of children (Champeaux et al., 2022). A study comparing COVID-19 containment across 50 regions between March 2020 and November 2021 found relationships between the Public Policy and Hygiene Education (GP&HE) indicator and each vital health and socioeconomic indicator. Country success has been associated with nonpharmaceutical interventions, early action, and necessary policy adjustments (Tsou et al., 2022).

In developed countries, much attention in scientific publications is paid to the negative impact of the COVID-19 pandemic on the labor market, gender equality, and the socio-economic status of women (Arntz et al., 2020). It could be due to the closure of children's institutions and educational schools, where the share of woman employees is higher. However, there are also opposing opinions of scholars. Thus, researchers from the USA argue that women suffered more from the pandemic (Cortes & Forsythe, 2020; Farré et al., 2022); other scientists did not find discrimination during the pandemic period (Milovanska-Farrington, 2021; Hupkau & Petrongolo, 2020). Some sources indicate that young workers suffered more during the pandemic period while experienced people remained in the workplace. Others suggest that adult workers suffered since they were sent to retirement before term.

Implementing measures to combat coronavirus infection has affected all levels of education. In Kazakhstan, all educational institutions have been transferred to online education. Different countries have taken various measures to limit people's interaction with each other, ranging from the complete closure of educational institutions in Germany and Italy and the closure of all institutions in the United Kingdom, except for schools that train specialists for workers in key industries (UNESCO, 2020).

More than 100 countries introduced nationwide closures of educational institutions. UNESCO estimates that the closure of educational institutions affected about 900 million students. The pandemic harmed the activities of research organizations, as some research fields not related to COVID-19 were suspended in many countries. For example, clinically trained researchers were sent to fight the pandemic in the United Kingdom (National Institutes of Health (NIH), 2020). The same was done in the USA, where all "non-critical" studies were closed to free up staff and resources for "critically" important health research. In several countries, research in the humanities and social sciences was suspended, and all laboratories at the Faculty of Arts and Sciences were closed at Harvard University (Harvard University, 2021).

Researchers pay attention to such important aspects of people's lives as education and healthcare, which impact human capital development and the country's economic growth. However, the conducted literature review showed that the issues of ensuring employment, the level and quality of life, and social support for vulnerable groups of citizens had not been sufficiently investigated.

Research methods

Over the past two years, the economies of different countries have been developing in extremely difficult conditions of the coronavirus pandemic. Only repeated observation, and generalization of various information makes it possible to form a correct idea of the current state of affairs. Among the scientific methods used, analysis and synthesis are of great importance. With their assistance, methods of state regulation and conceptual approaches to social development spheres were identified (Shcherbakov, 2021).

Types of general scientific approaches as a diagnostic method and monitoring were used to identify the problem and its scale as well as to determine the success or failure of state initiatives in solving issues related to the consequences of the pandemic.

In 2020, Kazakhstani scientists, within the framework of the Astana Public Service Hub project, conducted a comparative analysis of measures taken by the governments of a number of states to study and generalize government approaches in a pandemic. The modeling method was used to develop recommendations. (Abisheva et al., 2020).

A systematic approach was used to study the instruments of state regulation, their integrity, and their structural elements. In future stages of the study, this approach will be used to verify the results and outcomes of administrative initiatives and policies. An empirical analysis of the dynamics of the development of socio-economic indicators in Kazakhstan was carried out using the method of economic statistics, graphical and comparative analysis. Data was collected for the period of the past 5-10 years.

As part of the study, a questionnaire survey was conducted, in which about 7.5 thousand respondents participated. In a preliminary analysis of the questionnaire's open questions, the pandemic negatively impacted respondents' employment, affected their income levels and increased food prices. Respondents referred to the low level of payments to support the population, the need for not only material, but also psychological support for citizens during the pandemic period. The researchers conducted surveys of the population, experts in terms of assessing the effectiveness of government support measures during the pandemic. The methodology of our study differs from those studied by us in its complexity. The study examines the impact of the pandemic on all aspects of public life that affect the social life of the population in general: the development of the real sector of the economy, employment, education and healthcare, online commerce and domestic tourism. The pandemic has had a positive impact

on a number of industries, and a negative one on others. Based on the use of system-integrated analysis, a number of proposals in the field of public administration have been developed.

Data from the Bureau of National Statistics, international organizations, and State programs were used as the sources of information necessary for conducting a system-comprehensive analysis.

Results and discussion

Due to a large number of indicators in the system of state regulation, it is often difficult to analyze and, as a result, make rational management decisions. Difficulties with implementing strategic management may arise because of the wrong assessment of the status quo.

In our opinion, the tasks of assessing the consequences of the pandemic in the socio-economic space are:

- determination of the status quo of the social sphere;
- analysis of the socio-economic development in the country and regions;
- analysis of statistical indicators and assessment of the quality of life of the population (the healthcare system, education, and social services);

- analysis of deviations of indicators from planned ones;

- analysis of indicators of the social sphere.

The study used the results of a questionnaire survey to assess the consequences of the pandemic and state support measures for the population and businesses during the COVID-19 period in terms of evaluating the impact of the pandemic on changes in household income. According to respondents, the main problems as a result of the pandemic were unemployment, low wages, higher prices, and the need not only for the material but also for psychological support for people, etc.

Real Economy Indicators

The pandemic has become an unexpected force majeure factor for the public administration system of many countries, greatly exacerbating their long-existing systemic problems. The consequences of the pandemic harmed the global economy. Thus, the decline in global GDP in 2020 amounted to 4.3%, while during the global crisis of 2008-2009, in 2009 was only 1.7% (Plaksina et al., 2021).

In Kazakhstan, the volume of gross domestic product in 2021 increased by 18.2% compared to 2019 (Table 1).

Table 1 - Development indicators of the real sector of the economy in 2017-2021(million tenge)

Indicators	Years					2021 by 2019,%
	2017	2018	2019	2020	2021	
1	2	3	4	5	6	7
Gross domestic product	54 378 857,8	61819536,4	69 532626,5	70 649033,2	82 207959,7	118,2
The volume of industrial production (goods, services)	22 790 209	27 218 063	29 380 342	27 028 506	37 047 606	126,1
Mining and quarrying	11 568 785	14 877 068	15 978 061	11 785 557	17 808 987	111,5
Manufacturing industry	9 400 848	10 403 854	11 573 350	13 232 696	16 807 040	145,2
food production	1 525 814	1 527 687	1 708 013	1 957 241	2 216 698	129,8
beverage production	311 675	343 794	398 492	443 428	554 526	139,2
production of tobacco products	106 247	123 620	112 491	211 590	237 138	210,8
light industry	98 090	99 351	115 843	142 721	139 993	120,8
production of chemical industry products	333 328	401 141	475 139	476 329	554 663	116,7
metallurgy industry	4 075 747	4 614 873	4 965 432	5 662 784	7 677 979	154,6
production of finished metal products, except machinery and equipment	233 937	239 609	264 388	291 109	322 231	121,9
manufacture of computers, electronic and optical equipment	37 125	33 053	44 484	40 888	37 058	83,3
production of cars, trailers and semi-trailers	150 108	208 109	360 238	614 038	739 086	205,2
production of other vehicles	101038	88539	124563	216571	333 240	267,5
furniture manufacturing	43 482	38 613	47 997	53 545	59 676	124,3

1	2	3	4	5	6	7
Gross output of agricultural products (services)	4 070 916,8	4 474 088,1	5 151 163,0	6 334 668,8	7 346 672,6	142,6
gross crop production	2 249 166,9	2 411 486,7	2 817 660,6	3 687 310,3	4 232 458,6	150,2
gross livestock production	1 810 914,1	2 050 455,8	2 319 496,7	2 637 460,7	3 104 507,7	133,8
The volume of completed construction works (services)	3 509 296	3 862 995	4 431 666	4 934 069	5 495 181	124,0
Commissioning of social and cultural facilities:						
number of student places in commissioned educational schools	52 291	51 619	33 358	35 728	39 350	118,0
number of places in pre-school organizations commissioned	7 739	12 812	8 431	4 947	4 950	58,7
Commissioning of healthcare facilities:						
number of beds in commissioned hospitals	2 212	1 000	605	838	2 435	402,5
the number of visits per shift in the outpatient organizations put into operation	2 955	1 960	4 445	1 317	885	19,9
Passengers transported, million people	22 744,7	23 013,0	23 835,8	8 396,4	7 577	31,8
Passenger turnover, million pcm	273 193,4	281 484,1	295 516,6	108 711,0	106 813,1	36,1
Carried (transported) cargo, luggage, cargo luggage, million tons	3 946,1	4 103,8	4 222,7	3 944,8	3 999,4	94,7
Cargo turnover, billion t-km	564,0	609,5	597,6	584,0	597,2	99,9
Gross output of transport services, million tenge	6 474 355,6	7 522 986,9	8 534 920,3	6 746 980,2	7 579 332,2	88,8
The volume of communication services, million tenge	752 332,0	782 459,1	854 566,4	926 626,1	1 012 068,4	118,4

Note: Compiled by the authors based on Bureau of National Statistics (2022)

Table 1 demonstrates the development indicators of the real sector of the economy of Kazakhstan for 2017-2021. As table shows, the volume of production of mining (by 11.5%) and manufacturing (by 45.2%) industries increased in 2021 compared with 2019. There is significant growth in all manufacturing industry sectors, except for the production of computers, electronic and optical equipment (decreased by 16.7%). Also, the production of crop production (by 50.2%) and livestock (by 33.8%) in the agro-industrial sector of the economy increased.

The negative dynamics here are observed in those industries whose activities were affected by the COVID-19 pandemic. Due to the transition to online mode and social distancing, the number of places in kindergartens and nurseries decreased. The number of visits to polyclinics decreased due to the threat of infection with coronavirus. The decline in indicators of the service sector related to servicing the population is explained by the self-isolation of citizens in connection with the pandemic. These are the transportation of passengers and cargo, passenger and cargo turnover, and transport logistics. During the same period, the

volume of communication services increased by 18.4%.

Despite the negative dynamics of the development of several industries, the long-term consequences of the COVID-19 coronavirus have had a positive impact on e-commerce not only in Kazakhstan but also around the world. Globalization has turned e-commerce into a multibillion-dollar industry.

E-commerce is preferable for consumers because of the following reasons: a wide choice of goods and services is provided, prices for goods are much lower, and they are bought directly without intermediaries using modern IT technologies.

The COVID-19 coronavirus epidemic also had a positive impact on domestic tourism, although it began to develop before the pandemic period, as can be seen from Table 2. Compared to 2018, in 2019, the flow of tourists within the country increased by 1.6%. However, self-isolation and quarantine in 2020 reduced the number of tourists within the country by 8.0% compared to 2019. Due to the closure of borders, the number of tourists traveling abroad decreased in 2020 compared to 2017 by 3.6 times (Vechkinzova et al., 2021).

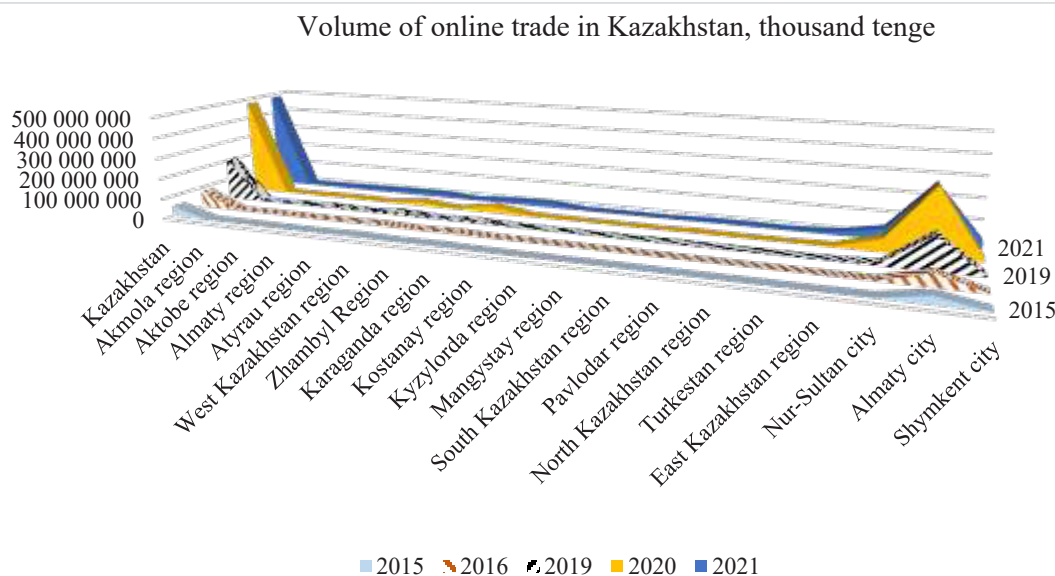


Figure 1 - Online trading in Kazakhstan

Note: Compiled by the authors based on Bureau of National Statistics (2022)

Table 2 - Domestic and outbound tourism in the Republic of Kazakhstan for 2017-2020

Indicators	Years				2020, by 2017, %
	2017	2018	2019	2020	
Domestic tourism	8 602 769	8 550 326	8 687 013	7 994 534	92,9
Outbound tourism	2 949 284	3 096 644	2 976 495	811 785	27,5

Note: Compiled by the authors based on Bureau of National Statistics (2022)

Kazakhstan’s domestic tourism provides a developed infrastructure and services, transport accessibility, and security. The importance of the tourism industry as a factor in the country’s economic growth is emphasized by the approval of the State Program for the Development of the tourism industry of the Republic of Kazakhstan for 2019-2025. The amount of 1,385,695.8 million tenge is provisionally allocated for the entire program implementation period.

State support of SMEs in Kazakhstan

Table 3 shows the number of operating small and medium-sized businesses. The presented data shows a positive trend. In all regions of Kazakhstan, the number of SMEs increased in 2021 compared to 2019. They are mobile, adaptable, and provide employment for residents of urban and rural settlements, reducing unemployment.

The State Program for Support and Development of Business “Road Map - 2020” was approved in 2018. The program ensures the growth of regional entrepreneurship and creates permanent jobs, provides access to financing for entrepreneurs in rural areas, small towns, and single-industry towns. The Government implemented a lending program for the priority project “Economy of Simple

Things” in 2019, aiming at developing non-primary manufacturing industries.

The implementation of these programs is carried out by the operator of state support measures JSC “Entrepreneurship Development Fund “Damu”. In 2019, the Fund financed over 24 thousand projects for a total amount of loans exceeding 600 billion tenge. The Fund’s own programs are being implemented in the regions to support SMEs. Kazakhstan ranked 25th among 190 countries in the Doing Business ranking.

Table 3 - Number of operating small and medium-sized enterprises by regions of the Republic of Kazakhstan for 2017-2021

Indicators	Years				
	2017	2018	2019	2020	2021
Republic of Kazakhstan	1 156 436	1 233 496	1 330 244	1 357 311	1 431 647
Akmola region	41 754	44 571	45 453	46 564	48 544
Aktobe region	50 430	54 691	59 116	61 797	65 992
Almaty region	111 528	114 919	122 368	123 181	129 716
Atyrau region	43 388	46 779	49 917	50 239	52 031
West Kazakhstan region	37 284	40 298	42 785	43 035	44 260
Zhambyl region	59 706	63 148	69 961	69 338	71 298
Karaganda region	80 589	84 067	88 299	90 196	95 296
Kostanay region	49 185	51 573	52 516	52 495	54 870
Kyzylorda region	37 700	42 585	46 297	48 657	51 063
Mangystau region	47 239	51 012	52 949	52 900	56 521
Pavlodar region	179 704	43 643	45 482	45 809	46 694
North Kazakhstan region	41 638	29 059	30 071	30 331	30 228
Turkestan region	28 146	124 762	141 992	140 605	144 778
East Kazakhstan region	81 310	88 252	88 938	90 453	95 916
Nursultan city	97 197	118 461	134 475	144 769	163 017
Almaty city	169 638	177 200	190 190	197 066	206 109
Shymkent city	-	58 476	69 435	69 876	75 314

Note: Compiled by the authors based on Bureau of National Statistics (2022)

According to the survey results conducted by KPMG aimed at determining the sufficiency of state support measures for business entities during the pandemic, the following was revealed as a barrier to obtaining state support under existing programs: 5% of respondents noted support mechanisms as ill-conceived; 5% of respondents said that the amount of funding is limited; 14% of respondents named requirements for participants tough; 19% of respondents that there are restrictions on industries and types of activities; 21% of respondents noted bureaucracy and administrative barriers as a barrier; 26% of respondents from among business entities called the lack of a “single window” and effective communication (KPMG, 2022).

Table 4 - Indicators of the implementation of the State program “the Business Roadmap” for 2019-2021

Years	Number of supported projects, units	The total amount of the loan portfolio, billion tenge
2019	4 128	229,8
2020	12 590	623,6
2021	12 689	258,68

Note: Compiled by the authors based on Bureau of National Statistics (2022)

According to the data presented in Table 4, the cost of one project amounted to 55,668,600 tenge in 2019, in 2020 - 49,531,374 tenge, in 2021 - 20,386,161 tenge. The top 10 most profitable small and medium-sized businesses in Kazakhstan today include catering, cleaning, and training enterprises. So, to open a self-service car wash, a start-up capital of up to 8.5 million tenge is required, mainly for renting a suitable location. The opening of a private kindergarten requires more money. Start-up capital of up to 20 million tenge is required, which includes the costs of renting a large room and its repair, buying furniture, a large number of toys, educational materials, and staff salaries. The analysis showed that the financial resources of the State Program “Business Roadmap” have been used inefficiently in recent years.

In remote work conditions, all global business representatives felt the need to transform internal processes and use digital technologies for efficient operation. However, digitalization processes were not going well in all Kazakhstani companies due to a shortage of financial resources and qualified employees.

Healthcare and education in Kazakhstan

The healthcare sector in many countries has also shown its insolvency. The COVID-19 coronavirus epidemic has revealed chronic problems in Kazakhstan's healthcare. These include the shortage of professional staff in state hospitals due to unacceptably low wages, low equipment during the peak of diseases, shortage of PCR tests, medicines, and lack of time for serving patients among ambulance doctors.

The Code of the Republic of Kazakhstan "On the Health of the People and the healthcare System" was approved on July 7, 2020. This code aims to ensure the implementation of the right to health protection, including affordable and high-quality medical care. The National project "High-quality and affordable healthcare for every citizen "Healthy Nation" is aimed at solving the same tasks (Code, 2020).

On December 26, 2019, the State Healthcare Program of the Republic of Kazakhstan for 2020-2025 was approved. The goal of the Program is to provide high-quality and affordable healthcare. The big problem here is the low wages of health care practitioners, not administrative staff. For example, they substantially increase the salaries of civil servants and administrative employees of budgetary organizations.

By 2021, 16 modular hospitals were urgently introduced, and three infectious diseases hospitals were reconstructed. One hundred eighty-five district hospitals were fully equipped with X-ray diagnostic equipment, 64 oxygen stations were put into operation, and more than 3 thousand ambulances and 459 units of laboratory equipment were purchased (Markova, 2021).

Currently, healthcare is a priority industry, and the emphasis is on the digitalization of medical services. The health ecosystem in the country is segmented in 4 directions and is aimed at:

- health improvement and prevention of diseases;
- early detection of diseases;
- provision of medical care;
- management of chronic diseases and rehabilitation.

For a complete analysis of the activities of healthcare institutions, an analysis of the salaries of medical workers was carried out (Republican Center for Health Development, 2019).

Let's compare the average monthly salary of employees in the whole country for 2018, which amounted to 162.67 thousand tenge. A doctor's salary is 0.89, the average indicator for the country. Increasing the wages of medical workers is a priority task that needs to be solved soon. In

the OECD countries, this indicator is 2.6, that is, the salary of doctors exceeds the average monthly salary of workers in the whole country by 2.6 times. The salary of doctors in our nation depends on specialization and place of work. Wages in public hospitals, polyclinics, and other medical institutions remain low. Since July 1, 2022, the wages of these workers have increased by 30%.

Despite a 30% increase in the medical personnel's salary in public health institutions, it remains very low, despite the important field of activity that ensures the livelihoods of citizens of Kazakhstan. Improving the quality of education is an urgent task. According to foreign experts, during the COVID-19 pandemic, the number of children from 7 to 17 years old who stopped receiving education increased ten times, which in the long term will negatively affect the development of the country's human capital.

In the field of education, the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020-2025 is being implemented. The main goal of the Program in the field of education is to improve its quality and, on this basis, to increase competitiveness in the field of science – to increase the role of science in the country's socio-economic development. As for science, it is important, in our opinion, to introduce the results of scientific research into Kazakhstan's practice. First of all, it is necessary to support functioning research organizations financially.

Indicators of employment and living standards of the population in Kazakhstan

The pandemic exacerbated existing problems in the labor market of Kazakhstan. The main tasks of state regulation of employment of the population are:

- ensuring employment of the population;
- the fight against unemployment;
- stimulating the opening of new jobs;
- social support for the unemployed.

Table 5 shows employment indicators in Kazakhstan for 2017-2021. The republic's unemployment rate in 2020-2021 amounted to 4.9%. The COVID-19 coronavirus pandemic and related restrictions, self-isolation of the population and quarantine measures, and the cessation of travel outside the country led to a decrease in business activity and a slowdown in economic growth in the world, including the economy of the Republic of Kazakhstan.

According to Table 5, Kazakhstan's population is growing. During the period of a strict quarantine regime, the number of employed people also developed in the country. In the same

period, the decline in the number of self-employed workers and the increase in the unemployed is due to restrictions by the government to reduce the spread of coronavirus. During the analyzed

period, the number of employees increased due to the increase in services to meet the needs of the self-isolated population in food and other necessary goods delivered by couriers.

Table 5 - Indicators of employment and unemployment in the Republic of Kazakhstan for 2017-2021

Indicators	Years					2021 by 2019, %
	2017	2018	2019	2020	2021	
The population at the end of the year, thousand people	18157,3	18395,6	18631,8	18879,6	19122,4	102,6
Labor force (aged 15 years and older), thousand people	9027,4	9138,6	9221,5	9 180,8	9256,8	100,4
Employed population, thousand people	8585,2	8695,0	8780,8	8 732,0	8807,1	100,3
Employees, thousand people	6485,9	6612,5	6681,6	6 686,7	6710,2	100,4
Self-employed workers, thousand of people	2099,2	2082,5	2099,2	2 045,4	2096,9	99,9
Unemployed population, thousand people	442,3	443,6	440,7	448,8	449,6	102,0
The unemployment rate, as a percentage	4,9	4,9	4,8	4,9	4,9	-

Note: Compiled by the authors based on Bureau of National Statistics (2022)

The problem of poverty in Kazakhstan remains relevant. According to the author of the publication, the poverty rate in the country has increased from 4.0% in 2019 to 12.4% in 2021. In Kazakhstan, poor citizens include those people who have a monthly income below the poverty line, which currently amounts to 70% of the subsistence minimum, equal to 37,389 tenge in 2022. (Iskakova, 2022). Consequently, the poverty line in 2022 is 26,172 tenge and people who earn less than this amount per month are poor. But this

indicator is not ideal and is often criticized, since it is believed that it does not consider the cost of living, family size, is not updated and is not adjusted considering regional differences.

According to Table 6, the average per capita nominal cash income of the population and the subsistence minimum are growing annually in the country. Thus, these indicators in 2021 compared to 2017 increased by more than 1.5 times. But the share of the population living on income below the subsistence level also remains high.

Table 6 - Indicators of the standard of living of the population in the Republic of Kazakhstan for 2017-2021

Living standards indicators	Years					2021 by 2017.
	2017	2018	2019	2020	2021	
Average per capita nominal monetary income of the population, tg	83 710	93 135	104 282	116 126	131 797	157,4
Share of the population with incomes below the subsistence level, in percent	2,7	4,3	4,3	5,3	5,2	-
Subsistence minimum, tg	23 783	27 072	29 342	32 668	37 266	156,7

Note: Compiled by the authors based on Bureau of National Statistics (2022)

The pandemic has changed the socio-economic space in Kazakhstan. Accordingly, the state is introducing appropriate support mechanisms to reduce the impact of the pandemic on unemployment and the lives of socially vulnerable citizens in the country.

The population's average per capita nominal monetary income increased by 11.9% compared to 2020 (Figure 2). But taking into account the increase in prices for consumer goods and services

over this period by 8.4%, the cash income of the population in 2021 in real terms increased by only 3.5%.

Despite the very low level of the approved living wage in 2021, the number of people with income below the living wage in the country officially amounted to 998 thousand people. However, experts say this number is 1.5 million people or more (Makarov, 2022).

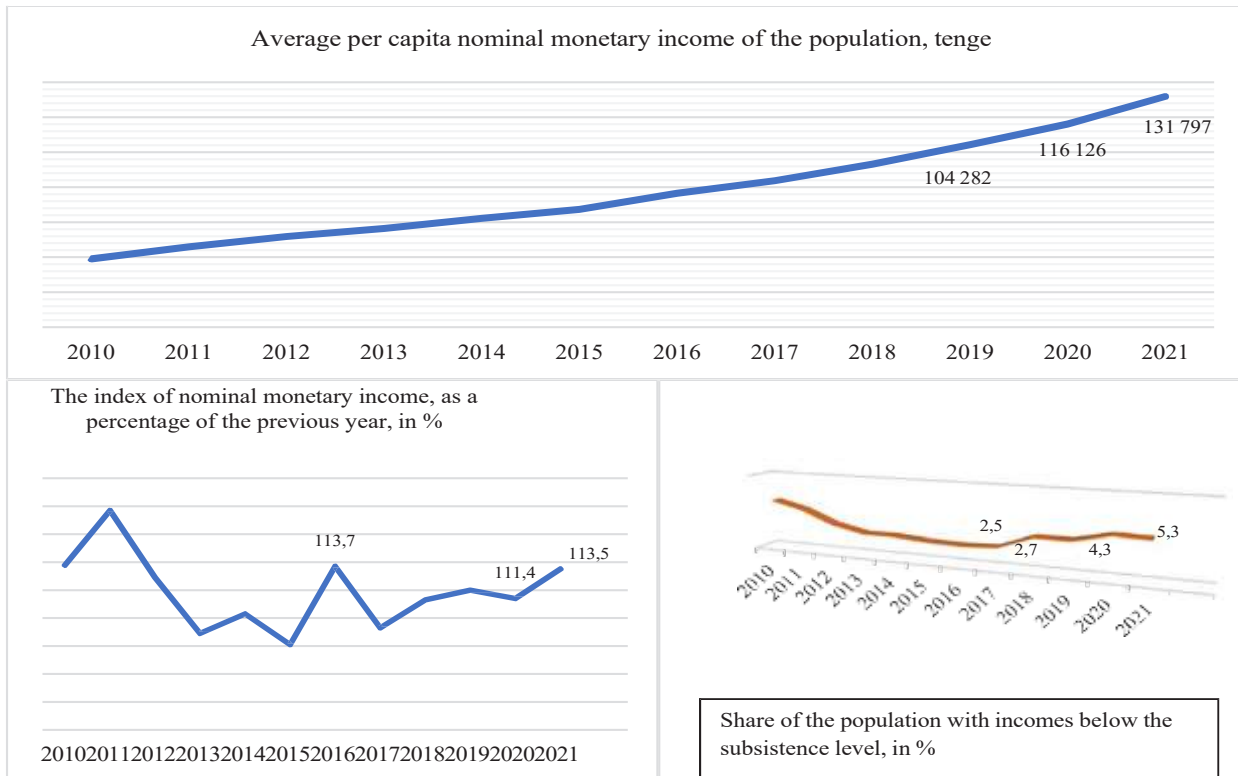


Figure 2 - Dynamics of the leading indicators of the standard of living of the population

Note: Compiled by the authors based on Bureau of National Statistics (2022)

To solve the problem of poverty in the post-pandemic period, it is necessary to raise the poverty line in accordance with the country's GDP and the international standard, increase the subsistence minimum, introduce income tax benefits for low-income individuals, regular indexation of the minimum wage, the introduction of unemployment benefits, etc.

Another vital point is the elaboration of the Social Code in the country. Its main objective is to create a unified legal framework for improving the quality of life by consolidating regulatory documents of the social sphere and ensuring the systematization of social payments and quality services. To date, there is 1 code and 16 laws in the social security field, which creates difficulties in understanding citizens' social rights. Also, public relations in one sphere can be regulated by various legislative acts, which makes obstacles to the orientation of social support measures (Kuzekbay, 2021).

In the future, the Social Code should become a single source of knowledge for citizens about their social rights and obligations and create conditions for taking preventive measures to ensure the social rights of citizens.

Conclusion

The recent changes in the socio-economic sphere confirm the long-term nature of the pandemic's consequences. It has exposed the existing problems of Kazakhstan in the field of economy, employment, education, healthcare, state support for business, and the social sphere have exacerbated the problem of poverty.

Kazakhstan should pay attention to the strategic development of such sectors of the economy as the production of food, medicines, and medical equipment, transport, and logistics in case of virus modifications. The emergence and outbreaks of new strains of coronavirus are alarming business representatives. And if modifications of the virus are inevitable, then the states' governments should think about the measures that will be periodically necessary to support business in the country.

It is necessary to determine the transformation directions and key changes in the post-pandemic world.

To support and develop small and medium-sized businesses using digitalization, it is necessary to improve the legal regulation in the field of data storage and processing, financial support for those lagging behind in the pace of digitalization,

or assistance in the form of grants or subsidies to optimize internal processes. Also, there is a need to use budget resources effectively to develop transport infrastructure, promote tourist facilities, ensure the safety of local and foreign tourists, etc.

Ensuring transparency of state bodies during the implementation of state programs remains relevant. The low efficiency and complexity of evaluating government programs and policies will have a long-term negative impact on the country's development.

Despite the priority of the healthcare sector in Kazakhstan and the increased digitalization of medical services, the study showed the need to create a highly effective scientific, technical and innovative base in this industry based on the use of the best scientific developments of the international scientific community in the field of medicine. The salary of state medical workers remains an issue as well. The position of doctors and medical personnel in public health institutions is still vulnerable.

Kazakhstan needs a plan to ensure the necessary level of employment in the country. It should reflect the primary mechanisms for supporting the population left without work due to the restriction of business activity of subjects in the country. It is necessary to restore the payment of unemployment benefits instead of social benefits for unemployed people for specific reasons. It is required to create favorable conditions for work in rural areas, build roads and hostels, develop infrastructure, and provide high-quality Internet and other attributes of world civilization, thereby solving the unemployment problem.

In the post-pandemic period, it is especially necessary to strengthen measures to ensure social rights and guarantees by creating standard parameters for ensuring social rights, the transition to international standards, and raising the poverty line, as well as improving the legal literacy of the population. Ensuring social payments at the level of international minimum social security standards and the introduction of per capita regulatory financing as part of the modernization of social support for the population will improve the population's welfare in the post-pandemic period.

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