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Assessment of Changes in the Structure of the Labor Market under the Influence of the Corona Crisis in Kazakhstan

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Abstract

The state of the labor sphere depends on many factors: the introduction of new technologies, demographic trends, the aggravation of international competition, the strengthening of the influence of globalization, but the coronavirus pandemic has had the greatest impact in recent years. The study aims to analyze the patterns of labor market development in Kazakhstan in the context of the coronavirus pandemic and assess its impact on the state and structure of the market. To achieve the goal, the methods of analysis and synthesis within the framework of a structural and functional approach were used in the work. This article presents the characteristics of the Kazakhstan labor market in the period before and after the introduction of quarantine restrictions. The positive and negative consequences of the pandemic and its impact on the labor market have been identified, including an increase in unemployment, a decrease in employment, gender and sectoral transformation of the labor market and a slowdown in external and internal labor migration flows. The industries most and least affected by the pandemic are highlighted. In particular, the sector of so-called "contact" services suffered the most, which, as a rule, is characterized by high labor intensity, relatively low wages, as well as an increased share of informal employment and self-employment. It is emphasized that the most important direction in the transformation of the domestic labor market will be its flexibility. The results obtained in the course of the study allow us to formulate proposals for improving the state policy of development and regulation of the labor market.

Keywords: Corona Crisis, Employment, Unemployment, Income Differentiation, Economics, Labor Market Flexibility

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Қазақстандағы дағдарыс тәжінің ықпалымен еңбек нарығы құрылымының өзгеруін бағалау

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Түйін

Еңбек саласының жай-күйі көптеген факторларға байланысты: жаңа технологияларды енгізу, демографиялық үрдістер, халықаралық бәсекелестіктің күшеюі, жаһанданудың күшеюі, бірақ соңғы жылдары коронавирустық пандемия үлкен әсер етті. Зерттеуде коронавирус пандемиясы жағдайында Қазақстандағы еңбек нарығының даму заңдылықтарын талдау және оның нарық жағдайы мен құрылымына әсерін бағалау мақсаты қойылады. Мақсатқа жету үшін жұмыста құрылымдық-функционалдық тәсіл аясында талдау және синтез әдістері қолданылды. Бұл мақалада карантиндік шектеулер енгізілгенге дейінгі және одан кейінгі кезендегі қазақстандық еңбек нарығының сипаттамасы берілген. Пандемияның оң және теріс салдары және оның еңбек нарығына әсері, оның ішінде жұмыссыздықтың өсуі, халықтың жұмыспен қамтылуының төмендеуі, еңбек нарығының гендерлік және салалық трансформациясы және ішкі және сыртқы еңбек көшіқон ағындарының баяулауы анықталды. Пандемиядан ең аз зардап шеккен салалар анықталды. Атап айтқанда, «байланыс» деп аталатын қызметтер секторы қатты зардап шекті, ол, әдетте, жоғары еңбек сыйымдылығымен, салыстырмалы түрде төмен жалақы деңгейімен, сондай-ақ бейресми жұмыспен қамту мен өзін-өзі жұмыспен қамту үлесінің артуымен сипатталады. Отандық еңбек нарығын трансформациялаудағы маңызды бағыт оның икемділігі болатыны атап өтілді. Зерттеу барысында алынған нәтижелер еңбек нарығын дамыту мен реттеудің мемлекеттік саясатын жетілдіру бойынша ұсыныстар қалыптастыруға мүмкіндік береді.

Tyйін сөздер: коронакризис, жұмыспен қамту, жұмыссыздық, кірістерді саралау, экономика, еңбек нарығының икемділігі

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Оценка изменений структуры рынка труда под влиянием коронакризиса в Казахстане

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Аннотация

Состояние сферы труда зависит от множества факторов: внедрения новых технологий, демографических тенденций, обострения международной конкуренции, усиления влияния глобализации, но наибольшее влияние в последние годы оказывает пандемия коронавируса. В исследовании ставится цель анализа закономерности развития рынка труда в Казахстане в условиях пандемии коронавируса и оценки ее влияния на состояние и структуру рынка. Для достижения цели в работе использовались методы анализа и синтеза в рамках структурно-функционального подхода. В данной статье представлена характеристика казахстанского рынка труда в период до и после введения карантинных ограничений. Выявлены положительные и негативные последствия пандемии и ее влияние на рынок труда, в том числе рост безработицы, снижение занятости населения, гендерная и отраслевая трансформация рынка труда и замедление внешних и внутренних трудовых миграционных потоков. Выделены отрасли, наиболее и наименее пострадавшие от пандемии. В частности, сильнее всего пострадал сектор так называемых «контактных» услуг, который, как правило, характеризуется высокой трудоемкостью, относительно низким уровнем оплаты труда, а также повышенной долей неформальной занятости и самозанятости. Подчеркивается, что важнейшим направлением в трансформации отечественного рынка труда станет его гибкость. Полученные в ходе исследования результаты позволяют сформулировать предложения по совершенствованию государственной политики развития и регулирования рынка труда.

 $\mathit{Ключевые\ cnoba}$: коронакризис, занятость, безработица, дифференциация доходов, экономика, гибкость рынка труда

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Introduction

Over the past four decades, the nature of labor and employment has changed dramatically, not only in the developed countries of the world [1]. The global processes of economic formation, the introduction of new technologies, demographic trends, the aggravation of international competition, the strengthening of globalization affect labor relations. The content of professions is changing, structural shifts in the economy lead to the elimination of several specialties and the emergence of new ones.

In addition, non-standard and flexible forms of employment in some industries and professions are rapidly spreading, and their overall share in the labor market of many countries has grown over the past few decades [2]. In many developed countries, the number of employed in temporary work and part-time work, temporary agency work, and "disguised" labor relations is increasing. Among the critical factors in the spread of these forms of employment are the changes in the sphere of labor (including legislative ones), fluctuations in macroeconomic indicators, and the economic crisis.

In recent years, the coronavirus pandemic has become a powerful destabilizing factor. Its peculiarity was expressed in the following: sanitary and epidemiological restrictive measures and the associated decline in economic activity of the real sector and domestic demand, reduction of external demand, instability of prices for energy resources and other export goods and services.

The consequences of COVID-19 have affected the economy of Kazakhstan more than the crises of 2008 and 2015. The spread of the virus brought global activity to a halt in the second quarter of 2020 and led to a decline in global demand and prices for oil, Kazakhstan's main export commodity. During the period of the state of emergency in 2020, 4.6 million people were left without income, and during the period of strengthening quarantine measures - 2.3 million people [3].

In 2020 the country's GDP decreased by 2.6 percent, but in 2021 there was economic recovery. Growth in household consumption driven by pent-up demand, fiscal support measures, and easing restrictions related to COVID-19 were the main drivers of GDP dynamics [3].

During the crisis, the state launched new or adapted existing social welfare programs in a short period. However, the current crisis has also highlighted the need to strengthen social security systems to respond to future crises better.

In the current situation, there is a need for an objective assessment of the economic situation, the dynamics of the impact of the crisis on the state of the labor market in order to develop effective development measures in the future.

Literature review

The most considered issues, in line with the studied issues, are the dynamics of the unemployment rate and employment, factors influencing the labor market, as well as the justification of the need for state support for the unemployed and vulnerable categories in the labor market, the definition of measures to improve the instruments of its regulation.

Among the works published recently, several works can be noted that are devoted to certain aspects of the functioning of the labor market in a pandemic.

Fana M., Torrejón Pérez S., Fernández-Macías E. made an attempt to assess the effects of COVID-19 on employment in a number of European countries (Germany, Spain and Italy). They revealed that the impact of the crisis on the sphere of labor occurred asymmetrically within and between countries. In particular, the countries most affected by the pandemic (Spain and Italy, as well as the UK) most often had high unemployment and non-standard employment [4].

Bartik A., Bertrand M., Lin F., Rothstein J., Unrath M. analyzing the US labor market during the period of strict quarantine in 2020, they concluded that the recession was caused by low wages in the service sector, especially in the retail, leisure, and hospitality sectors. The most significant job losses were observed in those enterprises in decline before the pandemic. At the same time, government measures to support the economy have shown mixed results. Regions of the country that received more generous unemployment benefits and volumes of concessional lending recovered faster [5].Hensvik L., Le Barbanchon T., Rathelot R. found in the case of Sweden that during the period of strict quarantine in 2020, the number of new vacancies decreased by 40%. Job seekers redirected their job searches to less affected occupations [6].

Research by Chaar T., Bromwich C. suggests that the impact of the pandemic on Canadian economic sectors was highly heterogeneous during the first wave of the pandemic and increased during subsequent waves of the virus. Supply shocks were found to be the main driver of changes in hours worked during the first wave of the pandemic, but this effect waned over time. Subsequent pandemic waves have had less of an impact on changing working hours [7].

Some authors also pay attention to the study of the situation of vulnerable population categories. Gavriluă N., Grecu S., Chiriac H. revealed several changes in the structure of the

labor market during the pandemic. The authors analyzed the impact of education, entrepreneurial skills, and gender identity in employment in the example of 28 EU countries [8]. Kaliyeva S., Buitek E., Meldakhanova M. assessed the impact of the pandemic on the youth labor market on the example of the Kazakh labor market and identified the need to integrate youth into society [9].

Results of study B. Churchill showed that young people were significantly affected by COVID-19 compared to the older population. Young women are most susceptible to negative consequences. COVID-19 threatens to devalue several successes women have achieved in recent decades in terms of participation in the labor market. The author noted that the state's role in eliminating negative effects is currently increasing. [10]

Adams-Prassl A.; Boneva T.; Golin M.; Rauh C., using data from surveys conducted in Germany, the UK and the US, showed that the impact of Covid-19 on the labor market varies significantly across countries and labor force characteristics. The negative effects of the coronavirus outbreak are particularly severe for women and young workers low-skilled jobs. According to the authors, the crisis has had a much lesser impact on part-time workers. [11]

Baert S., Lippens L., Moens E., Sterkens P., Weytjens J. explored the impact of the Covid-19 on job performance and career aspirations in Belgium. According to their data, about a fifth of workers (21%) experienced job insecurity, and 14% feared losing their job in the near future. In addition, migrants often expected the crisis to lower their career prospects. [12]

Almeida F. and Santos J.D. found that in the long run, older workers may also become unemployed and face many difficulties in finding new jobs due to their age and low academic qualifications. At the same time, the growing digitalization of the economy and business opens new opportunities for highly qualified young people who specialize in areas such as information technology, robotics, or digital marketing. It will also allow young people to work for companies abroad without leaving their home country [13].

Palomino J. C., Rodríguez J. G., Sebastián, R. found that the crisis has led to an increase in inequality and poverty in all European countries. Differences between workers with different employment statuses and working conditions are related to sectoral affiliation [14]. Barrot J.-N., Basile G., Sauvagnat, J., using data from France, show that the reduction in employment caused by social distancing measures was most significant in the hotel and restaurant industry; arts and

leisure; agriculture; service industry; and the lowest in the telecommunications and scientific and technical sectors [15].

In addition to academic research, several international organizations and research institutes have also been developing estimates of the impact of the pandemic on employment. An analysis by McKinsey & Company found that around 59 million jobs (26% of total employment) in Europe are potentially at risk of reduced working hours or wages, layoffs or permanent layoffs [16]. According to estimates by the International Labour Organization (ILO) in 2020, 93% of workers in the world carried out their activities in workplaces that faced quarantine restrictions. The loss of global working time in 2020 was four times more than during the global financial crisis of 2008. The number of working hours decreased by 8.8%, equivalent to 255 million jobs [17].

This study aims to analyze the patterns of labor market development in Kazakhstan in the context of the coronavirus pandemic and assess its impact on the state and structure of the market.

Research methods

The methodology of the analytical study is based on a systematic approach that involves determining the patterns of changes in the structure of the labor market in Kazakhstan and quantifying the consequences of these changes. The study used data from a sample survey of the labor market, income differentiation, and migration in Kazakhstan. The desk study was based on analyzing secondary information, including industry portals, articles, reviews, and data from government agencies, and analytical publications on the impact of the pandemic on the labor market.

For the analysis, the authors chose the period from 2019 to 2021 without taking into the account the periodization of the pandemic waves. For example, the work of Chaar T. and Bromwich C. involved studying changes in employment parameters based on five waves of coronavirus infection [7]. This work considers the consequences of the pandemic on the labor market based on a comparison of the indicators of the prepandemic and pandemic periods.

The analysis of trends in employment and unemployment in the country was carried out using a wide range of methods and approaches to research, including generalization and data mining, general scientific analysis tools, statistical methods, comparisons, comparisons. At the same time, methods of modeling and correlation analysis of the influence of one or several factors on the employment of specific segments of the population are often used in the literature [10,13,15].

This methodology allows to comprehensively consider the impact of the pandemic on changes in the structure of employment and unemployment by industry, age, gender, as well as income and forms of work. In addition, the analysis includes external and internal migration flows that determine the composition and structure of the labor force.

Results and discussion

The corona crisis has significantly impacted almost all aspects of economic and social activity. Against the background of a decline in economic activity, primarily in the service sector, the sphere of labor continues to change, which is reflected in changes in the structure of supply and demand for labor, working conditions, and the strengthening of a number of previously formed trends (for example, the digitalization of the economy). The current crisis has brought both positive and negative consequences to the sphere of work. Some of these changes are temporary and the normalization of the situation will depend on the epidemiological situation and the effectiveness of adapting public policy to new conditions.

The analysis of the development of the situation during the corona crisis in Kazakhstan allows us to determine the following main changes in the labor market.

The first. The economic crisis caused by COVID-19 has led to a decline in labor force participation and employment. The weakening of consumer and investment demand led to the suspension of many companies, many of which were forced to reduce the number of staff, especially in the service sector.

According to NCE Atameken, the introduction of a state of emergency and quarantine restrictions has seriously affected the activities of more than 830,000 entrepreneurs from the service and trade sectors, which employ 1.3 million people. The crisis forced entrepreneurs to stop their activities. By July 2020, the number of individual registered entrepreneurs in Kazakhstan had decreased by 2.8%. In addition, a survey by NCE Atameken, conducted in July 2020, in which 37 thousand entrepreneurs took part, showed that more than 41 thousand employees or about 15% of the total number of employees, were laid off by employers, 52 thousand employees (19% of the total) were sent on unpaid leave. [18].

The labor force participation rate in the 4th quarter of 2020 decreased to 69.5%, while in 2019 the indicator was 70.2% (Fig. 1). By 2021, the indicator also failed to reach the indicators of the pre-pandemic period (Fig. 1).

The main change in the labor force in Kazakhstan is caused by slow growth in the number of employed. In 2020, employment decreased by 0.6%, while in 2021, there was a slight increase of 0.8%. In addition, a long recovery in employment is associated with the retirement of a part of the able-bodied population from the labor force. The share of persons who are not part of the labor force was 30.7%, which is 0.8 percentage points higher than in 2019.

The number of employed in the service sector decreased particularly noticeably during the period of strict quarantine – by 1.8% in the 2nd quarter of 2020, but as restrictions eased by the end of the year, there was a slight recovery in employment (+0.4% in the 4th quarter of 2020).

The socio-economic consequences have unevenly affected different sectors of the economy, which can be conditionally divided into three types of sub-sectors: types of economic activity less affected by restrictions; types seriously limited by quarantine and self-isolation conditions; and industries whose demand volumes have increased sharply, primarily in healthcare.

For the second year in a row, there has been a decline in employment in several sectors of the service sector. In the hotel and restaurant business in 2021, the number of employed people decreased by 3.1% compared to the corresponding period in 2019, in the entertainment sector – by 5.1%, and in the transport industry – by 4.5%.

The real estate sector (+9.0%), healthcare (+4.6%), and education (+1.0%) turned out to be in the group of industries in which there was an increase in labor resources [8].

There was no sharp increase in the number of unemployed in 2019-2021 – their number by the end of 2021 amounted to 449.6 thousand people, which is more by 2.0% or 9.0 thousand people. compared to the pre-pandemic period. The absence of a sharp jump in unemployment was caused to a greater extent by the transition of part of the population from the labor force to the economically inactive category. Under the conditions of strict quarantine restrictions, an unemployed person could temporarily stop looking for a job or not be able to start it immediately. This fact affected the calculation of the indicator.

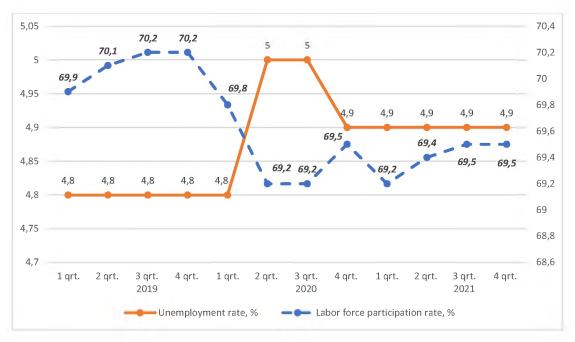


Figure 1 – Dynamics of the level of population participation in the labor force and unemployment, (%) [19]

Note – compiled according to the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

At the same time, considering the gender and age group, the following trends can be identified:

- The maximum increase in the number of unemployed over the past two years of the pandemic was observed among people of pre-retirement age 55-64 years. At the same time, a sharp increase was observed among men than among women (31.0% vs. 8.9%);
- Unemployment among young people has slowed after a sharp surge in 2020, already in 2021, due to state support. Thus, in 2020, there was a noticeable increase in the unemployed population among young men aged 16-24 years (+10.9%) and among women aged 25- 28 years (+6.7%). In 2021, the number of unemployed young men decreased by 5.4% compared to 2019, and young women by 1.5%;
- A similar dynamic is observed in the middle-aged population of 35-44 years. After the growth of 2020, unemployment in this category slowed down in 2021, the number of unemployed decreased by 3.9% compared to the previous year, but the indicator did not reach the level of 2019 (+1.2%) [19].

It should also be noted that during the period of strict quarantine, there was an increase in registration in state employment services. Thus, the number of persons registered with the employment authorities as unemployed for the 4th quarter of 2020 amounted to 141.8 thousand people, or 1.5% of the workforce, after a sharp surge during the period of strict

quarantine restrictions. So, in the 3rd quarter, their number reached 227.9 thousand people or 2.5% of the workforce. In 2021, registration growth with employment agencies continued – for nine months, the registered unemployment rate was 2.3% [19].

The social benefits of job loss also increased. Thus, according to the State Social Insurance Fund, in the 1st half of 2020, compared to the corresponding period last year, the number of recipients of unemployment benefits increased by 11.2%, and the total amount of payments - by 2.3 times. In the regional context, the most significant increase in recipients is noted West Kazakhstan (by 1.8 times) and Aktobe regions (by 1.3 times), in monetary terms, the amount of payment increased by 5 and 3 times, respectively. In addition, the number of benefits issued increased by 2.6 times in Karaganda and Kyzylorda regions, and by 2.5 times in Atyrau region [20].

The second. As a result of the pandemic, an industrial imbalance in the labor market has arisen or intensified, which has affected, among other things, the sectoral and general dynamics of wages.

Among the service industries, the administrative services sector felt the greatest impact of inflation growth on wage dynamics: in January-December 2020, real wages fell sharply by 5.9%. The average salary per employee, taking into account inflation in professional and scientific activities, also decreased and by the

end of the year decreased by 4.1%. Wages in construction fell by 1.9%, in particular, against the background of a slowdown in activity during the period of strict quarantine. In the wholesale and retail trade, as well as the financial sector, in 2020, employees received about 1.5% less per month compared to 2019.

However, in most subsectors, workers' real wages grew relatively steady. Thus, against the background of active state support, growth was noted in the budgetary sectors – education and healthcare (+22% per year) (Fig. 2).

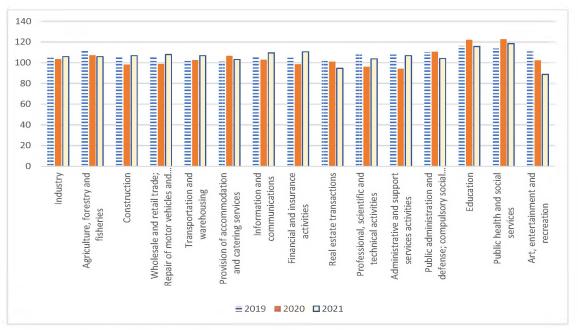


Figure 2 – Real wage growth by industry in 2019-2021, in %

Note – compiled according to the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan [19]

At the same time, as the restrictions were lifted in 2021, wages in most sectors recovered. However, the arts and entertainment and real e state sectors were most exposed to inflationary pressures and low economic activity.

The third. The corona crisis has increased income inequality, in particular, the differentiation of labor incomes. The number of poor people has also increased markedly.

The official concept of poverty in the country is based on an absolute approach that compares per capita income and the subsistence minimum ("income poverty"). The national poverty level is calculated as 70% of the subsistence minimum (70% of 34,302 tenge as of January 1, 2021).

According to official data, in the 3rd quarter of 2021, the share of the country's population with incomes below the subsistence minimum remained approximately at the same level as in 2020 and amounted to 5.3% (a year earlier – 5.7%).

However, the poverty level in 2021 was 1.2 times higher compared to the pre-pandemic 2019. The highest growth rates of the share of the population with incomes below the subsistence minimum were observed in urban than rural areas.

The leaders in the growth of the population with incomes below the subsistence minimum were the cities of republican significance and the western regions of the country (an increase of about two times). If in Almaty the share of the poor population was 2.6% in the 3rd quarter of 2019, then this year it is 4.9%, in Nur-Sultan – 1.8% versus 3.8%, in Atyrau region – 2.4% versus 4.5%, in Mangistau region – 4.3% versus 8.1%.

In addition, extended families consisting of 5 or more people feel the greatest impact of the crisis. The poverty rate among such households has increased by about 1.1 times compared to 2019 (Figure 3).

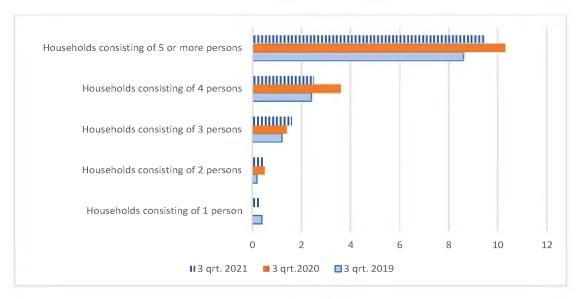


Figure 3 – The share of the population with incomes below the subsistence minimum in the total number of households, depending on their size, in % [19]

Note – compiled according to the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

Considering the indicators of income inequality, it is worth noting that in 2019-2021, the structure of inequality changed. The share of income belonging to the wealthiest fifth quintile by the 3rd quarter of 2021 to 39.7%, for the 1st quarter of 2020, the indicator was 39.2%.

The share of the second, third and fourth twenty percent groups tended to decrease – the average drop was 0.5 percentage points.,

The share of the first poorest quintile also increased by 0.21 percentage points (from 9.35% in the 1st quarter of 2020 to 9.56% in the 3rd quarter of 2021). This growth is mainly due to government support in terms of replacing lost income with financial payments [19].

The fourth. The crisis has a detrimental effect on certain categories of the population that are more susceptible to the negative dynamics of the labor market. As a rule, such categories include workers engaged in physical labor, as a rule with a low level of education, and low-paid.

For example, "disconnection" from the official labor market puts informal workers at risk of poverty and creates difficulties for earnings during the economic recovery. In Kazakhstan, in 2020, every seventh Kazakhstani worker or 1.2 million people with limited access to medical services and social protection and lack of decent work, worked in the informal sector. At the same time, the largest sectors with a high share of the informal economy are those directly affected by the coronavirus and related measures to ensure physical distancing. The wholesale/retail trade

sector was seriously affected, accounting for 13% or 162.7 thousand informally employed. Agriculture accounts for a significant proportion of the informally employed (54.7% of the total number of employed). At the same time, even though the level of risk in this sector can be called moderate, agricultural producers faced sales problems and decreased purchasing power [19].

In addition, most of the workers in the informal economy are self-employed or work in small firms with fewer than ten employees, making such enterprises more vulnerable. The share of independent workers in the total number of informally employed in 2020 was 43.8%. Persons with disabilities have become particularly vulnerable to the crisis. Even before the crisis, a significant part of the disabled was excluded from most work areas. According to the Ministry of Health of the Republic of Kazakhstan, only a quarter of people with disabilities of working age are involved in work (106.5 out of 424 thousand people). For example, in OECD countries this indicator reaches 40% [21].

Moreover, digital inequality is also making its adjustments. The level of digital skills in the country remains low. Thus, according to The Programme for the International Assessment of Adult Competencies (PIAAC), less than 1% of the adult population in Kazakhstan achieve the highest level of problem-solving skills in a hightech environment, which is much lower than the OECD average (about 5%). In addition, there is a noticeable digital gap between age groups. Only 18% of adults aged 25 to 34 years achieve high

proficiency in advanced digital skills, compared with 43% on average in OECD countries [22]. Among the EAEU countries, Kazakhstan ranks third in this indicator after Belarus and Russia [23].

The fifth. The corona crisis has also intensified gender imbalances in the labor market. Women's employment is at greater risk than that of men, in particular, due to the impact of the crisis on the service sector. Women make up more than 50% of all workers employed in the most affected sectors, including food, trade, and real estate [19].

The sixth. Restrictions on cross-border movements have led to a drop in external and internal migration flows, which are an essential factor determining the composition and structure of the labor force.

Thus, according to the Bureau of National Statistics, the balance of external migration amounted to 17.6 thousand people, which is significantly less compared to the previous period (-thousand people). More than 29.1 thousand people left Kazakhstan in 2020, and 11.4 thousand migrants came to live in the country. For the first time in the last few years, the number of departures decreased by 35.6%, the number of arrivals – by 6.6%. By 2021, as restrictions were lifted, migrant flows increased. The balance of external migration amounted to -21.2 thousand people. The indicator did not reach the levels of the pre-pandemic period.

At the same time, the pandemic did not affect the steady migration trend of highly skilled labor. The share of persons with higher education among those leaving Kazakhstan for permanent residence in the "corona crisis" in 2020 remained approximately at the same level as in previous years (28.1%, in 2014-2019, it ranged from 27-32%). In absolute terms, the number of emigrants with higher education decreased by 35.2%. In other words, before the pandemic, in 2020, about one in three migrants had higher education.

The difficult socio-economic situation in the world has influenced the country's arrival system of foreign labor. So, part of the quotas for attracting the IRS remained unclaimed. Within the quota, which is set to protect the domestic labor market, in 2020, the number of foreigners engaged in labor activity amounted to 17.3 thousand people or 0.19% of the country's workforce. Compared to the pre-pandemic 2019, their number has sharply decreased by 31.9%.

Internal migration flows have also slowed down. Interregional migration data show that 343 thousand people moved from one region to another in 2021. In 2019, this figure was higher – 419 thousand people. Regional migration has also declined. The number of people moving from the

village to the city within their region decreased from 681.6 thousand people in January-December 2019, up to 436.8 thousand people or by 35.9% [19].

The seventh. The spread of remote interaction formats has allowed some industries to adapt to new conditions and maintain a certain level of labor productivity.

For employers, this means reducing costs in terms of reducing operating costs (office space rental, transportation costs, etc.). In contrast, for employees, it means improving the balance between work and rest, provided that labor is skillfully organized and self-organized. By the beginning of 2021, 73.7 thousand people worked remotely in Kazakhstan, 70.2% of whom were women living mainly in the city [24].

Conclusion

Thus, the labor market in Kazakhstan is strongly influenced by the pandemic and its socio- economic consequences. Based on the results of the study, the following conclusions can be drawn:

- 1) Healthcare and education were among the sectors whose demand volumes increased sharply. At the same time, as restrictions were lifted, labor activity in most sectors recovered. However, art and entertainment sectors and real estate transactions are most exposed to inflationary pressures and low economic activity.
- 2) The negative impact of the crisis has most affected the categories of workers in unprotected conditions, which creates additional risks of increased vulnerability and poverty. There was no sharp increase in unemployment in the labor market. This mainly was caused to a greater extent by the transition of part of the population from the labor force to the economically inactive population, which affected the calculation of the indicator. But at the same time, young people and the population of pre-retirement age suffered the most from the consequences of the corona crisis.
- 3) There is a tendency to increase the population's income differentiation. The highest growth rates of the share of the people with incomes below the subsistence minimum were observed in urban than rural areas. Large families feel the strong impact of the crisis.
- 4) The sector of so-called "contact" services suffered the most, which, as a rule, is characterized by high labor intensity, relatively low wages, as well as an increased share of informal employment and self-employment. Employment has declined the most in this area, although government support measures have mitigated the negative impact.
 - 5) For Kazakhstan, the main characte-

ristic of the external migration mobility of the population in the pandemic conditions was the slowdown in the influx of immigrants and the volume of emigration of the people. At the same time, despite the reduction in the departure of the population for permanent residence abroad, the so-called "brain drain" continued: every third emigrant had a higher education. The attraction of migrant workers to the country has also slowed down.

6) The positive effect of the corona crisis on the labor market is to increase the flexibility of the labor market, which can be an important factor in reducing unemployment and increasing the growth rate of the national economy. The spread of remote labor relations has allowed a number of industries to adapt to new conditions.

Thus, as a response to the negative impact of economic instability on the labor market, it is of great importance today to expand and improve the effectiveness of state support measures: the system of unemployment payments and active employment promotion programs, which should be supportive and complementary.

The pandemic has once again confirmed that the current mechanisms of social policy and approaches to curb poverty and economic inequality in the country have proved to be untenable. To date, a low level of extreme poverty has formed in Kazakhstan and an underestimated wide layer of citizens living in conditions or on the verge of poverty, who are more affected by the "corona crisis". In the post-pandemic period, Kazakhstan may face the problem of "new poverty" due to a whole combination of factors (decreasing incomes of Kazakhstanis, rising unemployment, job cuts). Firstly, the mechanisms in the labor market should be aimed at expanding the system of retraining and professional retraining of various age groups with an emphasis on reducing digital inequality, increasing labor mobility of the population. Particularly active labor market policies should target vulnerable categories such as young people, working women, migrants, and people with disabilities.

Secondly, it is necessary to improve the interaction of employment services with employers and revise the system of communication with small and medium-sized businesses in recruitment. Kazakhstan, like many OECD countries, faces the problem of involving employers in employment programs and the weak performance of public employment services. However, in countries with a more developed system of employment services, there is a tendency to expand services for employers (Germany, Austria, Estonia, etc.) - from the development of comprehensive national strategies to attract

employers to an individual approach to each employer [25].

Thirdly, the sphere of employment is formed under the complex influence of a number of conditions and factors. One of the tasks is to adapt the employment sector to the needs of economic development. Under these conditions, the world of work is becoming increasingly mobile in spatial and functional terms. Of particular relevance is the use of flexible employment as a way to adapt to global changes and as a tool to increase the efficiency of the use of labor resources. It is necessary to create conditions for the development of a flexible labor market with the widespread use of non- standard forms of employment, flexible forms of hiring and stimulation of all forms of labor mobility, including geographical. This will make it possible to realize the economic opportunities of vulnerable categories of citizens in the labor market and thereby ease the social burden on the budget.

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References

- 1. Barley, S.R., Bechky, B.A., & Milliken, F.J. (2017). The changing nature of work: Careers, identities, and work lives in the 21st century. Academy of Management Discoveries, 3(2), 111-115. https://doi.org/10.5465/amd.2017.0034_
- 2. International Labour Organization. Non-standard employment around the world: Understanding challenges, shaping prospects. Geneva: ILO Publications, (2016). [updated January 25, 2016; cited March 30, 2022]. Available: https://www.ilo.org/global/topics/non-standard-employment/lang-en/index.htm
- 3. Agaidarov, A., Izvorski, I. V., & Rahardja, S. Kazakhstan economic update: Navigating the crisis. D.C.: World Bank Group, (2020). [updated July 21, 2020; cited March 30,2022]. Avalable: http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-">http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-"/
 http://documents.worldbank.org/curated/en/792601609750/Kazakhstan-"/
 http://documents.worldbanks.worldbanks.worldbanks.worldbanks.worldbanks.worldbanks.worldbanks.worldbanks.worldbanks.worldbanks.worldbanks.worldbanks.w
- 4. Fana, M., Torrejón Pérez, S., & Fernández-Macías, E. (2020). Employment impact of Covid-19 crisis: from short term effects to long terms prospects. *Journal of Industrial and Business Economics*, 47(3), 391-410. https://doi.org/10.1007/s40812-020-00168-5
- 5. Bartik, A. W., Bertrand, M., Lin, F., Rothstein, J., & Unrath, M. (2020). *Measuring the labor market at the onset of the COVID-19 crisis* (No. w27613). National Bureau of Economic Research. https://doi.org/10.3386/w27613
- 6. Hensvik, L., Le Barbanchon, T., & Rathelot, R. (2021). Job search during the COVID-19

- crisis. Journal of Public Economics, 194, 104349. https://doi.org/10.1016/j.jpubeco.2020.104349_
- 7. Chaar, T., & Bromwich, C. (2021). Measuring Labor Supply and Demand Shocks during COVID-19. *Atlantic Economic Journal*, 49(3), 305-307. https://doi.org/10.1007/s11293-021-09730-5
- 8. Gavrilută, N., Grecu, S. P., & Chiriac, H. C. (2022). Sustainability and Employability in the Time of COVID-19. Youth, Education and Entrepreneurship in EU Countries. *Sustainability*, *14*(3), 1589. https://doi.org/10.3390/su14031589
- 9. Kaliyeva, S.A., Buitek, E.K., &Meldakhanova, M.K. (2020). Analysis of the youth labor market in the Republic of Kazakhstan in the context of global challenges. *Economics: the strategy and practice.* 15(4), 81-88. https://doi.org/10.51176/JESP/issue-4-T7
- 10. Churchill, B. (2021). COVID-19 and the immediate impact on young people and employment in Australia: A gendered analysis. Gender, Work & Organization, 28(2), 783-794. https://doi.org/10.1111/gwao.12563_
- 11. Adams-Prassl, A., Boneva, T., Golin, M., & Rauh, C. (2020). Inequality in the impact of the coronavirus shock: Evidence from real time surveys. *Journal of Public economics*, 189, 104245. https://doi.org/10.1016/j.jpubeco.2020.104245
- 12. Baert, S., Lippens, L., Moens, E., Sterkens, P., & Weytjens, J. (2020). How do we think the COVID-19 crisis will affect our careers (if any remain)? https://doi.org/10.1371/journal.pone.0246899
- 13. Almeida, F., & Santos, J. D. (2020). The effects of COVID-19 on job security and unemployment in Portugal. *International Journal of Sociology and Social Policy*, 40(9/10), 995-1003. https://doi.org/10.1108/IJSSP-07-2020-0291_
- 14. Palomino, J.C., Rodríguez, J.G., & Sebastian, R. (2020). Wage inequality and poverty effects of lockdown and social distancing in Europe. *European economic review*, 129, 103564. https://doi.org/10.1016/j.euroecorev.2020.103564
- 15. Barrot, J.N., Grassi, B., & Sauvagnat, J. (2021, May). Sectoral effects of social distancing. In *AEA Papers and Proceedings* (Vol. 111, pp. 277-81). https://doi.org/10.2139/ssrn.3569446
- 16. McKinsey and Company. Safeguarding Europe's livelihoods: mitigating the employment impact of Covid-19, (2020) [updated April 25, 2020; cited April 30, 2022]. Avalable: https://www.mckinsev.com/industries/public-sector/our-insights/safeguarding-europes-livelihoods-employment-impact-of-covid-19
- 17. ILO Monitor: COVID-19 and the world of work. Seventh edition. (2021). ILO, pp. 1-2. [updated January 25, 2021; cited March 30, 2022]. Avalable: https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms_767028.pdf
- 18. National Chamber of Entrepreneurs "Atameken", (2020). [updated August 3, 2020; cited March 30, 2021]. Available: https://atameken.kz/ru/news/37529-ablaj-myrzahmetov-strogoe-soblyudenie-sannorm-i-otvetstvennost-dadut-biznesu-vozmozhnost-rabotat

- 19. Bureau of National Statistics (2021) [updated October 10, 2021; cited November 30, 2021]. Available: http://www.stat.gov.kz
- 20. Information about the amounts of social contributions and penalties. State Social Insurance Fund, (2022) [updated March 1, 2022; cited March 30, 2021]. Available: https://gfss.kz/en/indicators_
- 21. Official information resource of the Prime Minister of the Republic of Kazakhstan, (2021), [updated December 2, 2022; cited March 30, 2021]. Available: https://primeminister.kz/ru/news/v-kazahstane-realizuetsya-nacionalnyy-plan-po-obespecheniyu-prav-i-uluchsheniyu-kachestva-zhizni-lic-s-invalidnostyu-do-2025-g-b-nurymbetov-2113943
- 22. Kazakhstan. Country Note. Survey of Adult Skills results. (2005). OECD, pp. 14. [updated December 2, 2022; cited March 30, 2021]. Available: https://www.oecd.org/skills/piaac/publications/countryspecificmaterial/PIAAC Country Note Kazakhstan.pdf
- 23. Zhanbozova, A., Turgel, I., & Azatbek, T. (2021). Composite Index for Evaluating the B2C E-Commerce Development in the EAEU Countries. *Economy of Regions, 17*(4), 1332-1345. https://doi.org/10.17059/ekon.reg.2021-4-20
- 24. Center for Human Resources Development, (2021) [updated May 19, 2021; cited March 30, 2021]. Available: https://iac.enbek.kz/ru/node/1058
- 25. Alshanskaya, A. (2020). Problems of youth employment in the labor market in Kazakhstan. Nur-Sultan: Kazakhstan Institute for Strategic Studies under the President of the Republic of Kazakhstan, 100, 4

Список литературы (транслитерация)

- 1. Barley, S.R., Bechky, B.A., & Milliken, F.J. (2017). The changing nature of work: Careers, identities, and work lives in the 21st century. Academy of Management Discoveries, 3(2), 111-115. https://doi.org/10.5465/amd.2017.0034_
- 2. International Labour Organization. Non-standard employment around the world: Understanding challenges, shaping prospects. Geneva: ILO Publications, (2016). [updated January 25, 2016; cited March 30, 2022]. Available: https://www.ilo.org/global/topics/non-standard-employment/lang-en/index.htm
- 3. Agaidarov, A., Izvorski, I. V., & Rahardja, S. Kazakhstan economic update: Navigating the crisis. D.C.: World Bank Group, (2020). [updated July 21, 2020; cited March 30,2022]. Avalable: http://documents.worldbank.org/curated/en/792601609750238730/Kazakhstan-Economic-Update-A-Slow-Recovery-Through-the-COVID-19-Crisis
- 4. Fana, M., Torrejón Pérez, S., & Fernández-Macías, E. (2020). Employment impact of Covid-19 crisis: from short term effects to long terms prospects. *Journal of Industrial and Business Economics*, 47(3), 391-410. https://doi.org/10.1007/s40812-020-00168-5

- 5. Bartik, A. W., Bertrand, M., Lin, F., Rothstein, J., & Unrath, M. (2020). *Measuring the labor market at the onset of the COVID-19 crisis* (No. w27613). National Bureau of Economic Research. https://doi.org/10.3386/w27613
- 6. Hensvik, L., Le Barbanchon, T., & Rathelot, R. (2021). Job search during the COVID-19 crisis. *Journal of Public Economics*, *194*, 104349. https://doi.org/10.1016/j.jpubeco.2020.104349
- 7. Chaar, T., & Bromwich, C. (2021). Measuring Labor Supply and Demand Shocks during COVID-19. *Atlantic Economic Journal*, 49(3), 305-307. https://doi.org/10.1007/s11293-021-09730-5
- 8. Gavriluţă, N., Grecu, S. P., & Chiriac, H. C. (2022). Sustainability and Employability in the Time of COVID-19. Youth, Education and Entrepreneurship in EU Countries. *Sustainability*, *14*(3), 1589. https://doi.org/10.3390/su14031589
- 9. Kaliyeva, S.A., Buitek, E.K., &Meldakhanova, M.K. (2020). Analysis of the youth labor market in the Republic of Kazakhstan in the context of global challenges. *Jekonomika: strategija i praktika*, [Economics: the strategy and practice]. 15(4), 81-88. https://doi.org/10.51176/JESP/issue 4 T7 (In Russ.)
- 10. Churchill, B. (2021). COVID-19 and the immediate impact on young people and employment in Australia: A gendered analysis. Gender, Work & Organization, 28(2), 783-794. https://doi.org/10.1111/gwao.12563_
- 11. Adams-Prassl, A., Boneva, T., Golin, M., & Rauh, C. (2020). Inequality in the impact of the coronavirus shock: Evidence from real time surveys. *Journal of Public economics*, *189*, 104245. https://doi.org/10.1016/j.ipubeco.2020.104245
- 12. Baert, S., Lippens, L., Moens, E., Sterkens, P., & Weytjens, J. (2020). How do we think the COVID-19 crisis will affect our careers (if any remain)? https://doi.org/10.1371/journal.pone.0246899
- 13. Almeida, F., & Santos, J. D. (2020). The effects of COVID-19 on job security and unemployment in Portugal. *International Journal of Sociology and Social Policy*, 40(9/10), 995-1003. https://doi.org/10.1108/IJSSP-07-2020-0291
- 14. Palomino, J.C., Rodríguez, J.G., & Sebastian, R. (2020). Wage inequality and poverty effects of lockdown and social distancing in Europe. *European economic review*, *129*, 103564. https://doi.org/10.1016/j.euroecorev.2020.103564
- 15. Barrot, J.N., Grassi, B., & Sauvagnat, J. (2021, May). Sectoral effects of social distancing. In *AEA Papers and Proceedings* (Vol. 111, pp. 277-81). https://doi.org/10.2139/ssrn.3569446
- 16. McKinsey and Company. Safeguarding Europe's livelihoods: mitigating the employment impact of Covid-19, (2020) [updated April 25, 2020; cited April 30, 2022]. Avalable: https://www.mckinsev.com/industries/public-sector/our-insights/

- <u>safeguarding-europes-livelihoods-</u> employment- impact-of-covid-19
- 17. ILO Monitor: COVID-19 and the world of work. Seventh edition. (2021). ILO, pp. 1-2. [updatedJanuary25, 2021; cited March 30, 2022]. Avalable: https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms767028.pdf
- 18. National Chamber of Entrepreneurs "Atameken", (2020). [updated August 3, 2020; cited March 30, 2021]. Available: https://atameken.kz/ru/news/37529-ablaj-myrzahmetov-strogoe-soblyudenie-sannorm-i-otvetstvennost-dadut-biznesu-vozmozhnost-rabotat. (In Russ.)
- 19. Bureau of National Statistics (2021) [updated October 10, 2021; cited November 30, 2021]. Available: http://www.stat.gov.kz. (In Russ.)
- 20. Information about the amounts of social contributions and penalties. State Social Insurance Fund, (2022) [updated March 1, 2022; cited March 30, 2021]. Available: https://gfss.kz/en/indicators_(In Russ.)
- 21. Official information resource of the Prime Minister of the Republic of Kazakhstan, (2021), [updated December 2, 2022; cited March 30, 2021]. Available: https://primeminister.kz/ru/news/v-kazahstane-realizuetsya-nacionalnyy-plan-poobespecheniyu-prav-i-uluchsheniyu-kachestva-zhiznilic-s-invalidnostyu-do-2025-g-b-nurymbetov-2113943. (In Russ.)
- 22. Kazakhstan. Country Note. Survey of Adult Skills results. (2005). OECD, pp. 14. [updated December 2, 2022; cited March 30, 2021]. Available: https://www.oecd.org/skills/piaac/publications/countryspecificmaterial/PIAAC Country Note Kazakhstan.pdf
- 23. Zhanbozova, A., Turgel, I., & Azatbek, T. (2021). Composite Index for Evaluating the B2C E-Commerce Development in the EAEU Countries. *Economy of Regions*, 17(4), 1332-1345. https://doi.org/10.17059/ekon.reg.2021-4-20
- 24. Center for Human Resources Development, (2021) [updated May 19, 2021; cited March 30, 2021]. Available: https://iac.enbek.kz/ru/node/1058_(In Russ.)
- 25. Alshanskaya, A. (2020). Problems of youth employment in the labor market in Kazakhstan. Nur-Sultan: Kazakhstanskij institut strategicheskih issledovanij pri Prezidente Respubliki Kazakhstan [Nur-Sultan: Kazakhstan Institute for Strategic Studies under the President of the Republic of Kazakhstan], 100, 4. (In Russ.)

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