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LABOUR MARKET IN POLAND IN THE CONTEXT OF CORONAVIRUS SARS-COV-2

Abstract:

This study aims to analyze and assess the impact of the economic crisis on the labour market in the context of the SARS-CoV-2 coronavirus. To verify the main hypothesis and research questions, apart from qualitative research, a quantitative own study and a study on a group of four experts – HR Business Partners were also conducted. The study used the Analytical Hierarchical Process (AHP), which is one of the multi-criteria methods of making decisions. The working model most effective for companies, selected based on own research, was compared with the results for a group of experts. The analysis of the existing literature, reports and research allowed for the assessment of the impact of the economic crisis on Poland and the expansion of the spectrum of the analyzed problem relating to the choice of the most effective model of work for companies.

Keywords:

AHP, coronavirus, economic crisis, labour market, remote work

Introduction

The economic crisis caused by the SARS-CoV-2 coronavirus is one of the biggest crises the global economy will have to face. It affected both weakly developing countries and the world's largest economies. It influenced many areas, including the situation in the labour market. The outbreak of the pandemic showed us what the labour market may look like in the future. The

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percentage of companies that introduced solutions based on automation processes has significantly increased. The approach to leadership has also changed, as company leaders had to learn to manage crises and quickly adapt to new changes. On the other hand, deepening the knowledge and acquiring new skills has become a key element of the employees' survival in the labour market.

The study aims to select the best work model for companies in Poland, taking into account the costs of introducing remote work. During the pandemic, workplaces that had such an opportunity completely switched to remote work, which had not been so popular so far.

The pandemic attack had a large impact on the Polish economy, thus interrupting the socio-economic progress that had been sustained for several years. Many irreversible changes took place in the labour market, to which both employees and employers had to adapt. The pandemic accelerated, above all, the processes of automation and digitization that had been going on for years. The employer's approach to the functioning of companies in the remote and hybrid work models has also changed. The following hypothesis was adopted in the study: the coronavirus pandemic significantly changed the functioning of the labour market. The article poses the following research questions:

- Has the pandemic affected the number of liquidated positions?
- Has the pandemic changed the attitudes of employees and employers to remote and hybrid work?
- Has the outbreak of the pandemic affected the number of job offers published by employers?
- Has the pandemic changed the employee's attitude to change jobs?
- Has the pandemic influenced recruitment processes?

The verification of the hypothesis and research questions was carried out by analyzing the literature and research and reports on the economic crisis in the context of the SARS-CoV-2 coronavirus.

The economic crisis in economic theory

The literature on the subject does not provide an unambiguous answer that would explain the cause of economic crises. The reasons include, among others, the imperfection of economic theories and changes taking place in the economy – both at the national level and around the world². It is also worth remembering that each crisis has different causes. Table 1 below shows that the views on the causes of crises differed depending on the period of the crisis.

² K. Piech, *Cykl koniunkturalny i kryzysy gospodarcze – przegląd keynesowskich i współczesnych teorii ekonomicznych*, „Studia i prace, Collegium of Management and Finance, Scientific Journal”, No. 142, 2002, p. 97.

Table 1. Selected views on economic crises in the context of the theory of business cycles.

School	The cause of the crisis	Anti-crisis policy
Mercantilism: Thomas Mun, David Hume	the changes in the real product are influenced by changes in the quantity of money	supporting foreign trade
Physiocrats: Francois Quesnay	state regulation of trade is an obstacle to economic growth	laissez-faire as a policy leading specifically to the development of agriculture
The classics: Adam Smith, David Ricardo	state interventions	free market
Thomas Malthus	insufficient consumption	increasing consumption by non-producers (teachers, officials, landowners)
John S. Mill	oversupply due to credit constraints due to pessimistic expectations of economic circles	wait for the prices to adjust
Karol Marks	technological cycle, disproportionality crises, long-term decline in the rate of profit	departure from capitalism in favour of socialism and then communism
Marginalists	declining marginal productivity	wage reduction
Michał Kalecki	the policy of balancing the budget under pressure from the 'industrial leaders' during the boom period	the policy of expansion of state expenditure
Alfred Marshall	excessive credit expansion	credit control in boom

	during the boom period	times, risk insurance in a recession
John M. Keynes	insufficient aggregate demand (demand shock)	stimulating aggregate demand through expansionary monetary and fiscal policies, and an increase in state spending
Post-Keynesians	changes in investment outlays	demand regulation (income policy)
Monetarists	monetary disruptions (excessive money supply growth)	passive stabilization policy of monetary aggregates
Neoclassicals	unexpected, too restrictive monetary policy	stable and credible monetary policy
School of the political business cycle	national elections	receivable from the central bank, introduction of a floating exchange rate
The school of the real business cycle	supply shocks (mainly technological) through investments; slowing productivity growth	no stabilization policy
The New Keynesian School	supply and demand shocks (mainly), recessions are deepened by price and wage rigidity and risk aversion	stimulating demand through monetary policy, eliminating rigidity
Austrian school	State intervention to improve the economic situation through (excessive) credit expansion) ‘artificial prosperity’)	no interventionism, leaving the economy to itself, counteracting a crisis during a boom period

Source: K. Piech, *op. cit.*, pp. 107-108.

In the literature on the subject, the crisis is usually presented by examining its causes, while negating the current economic reality. This is an accurate

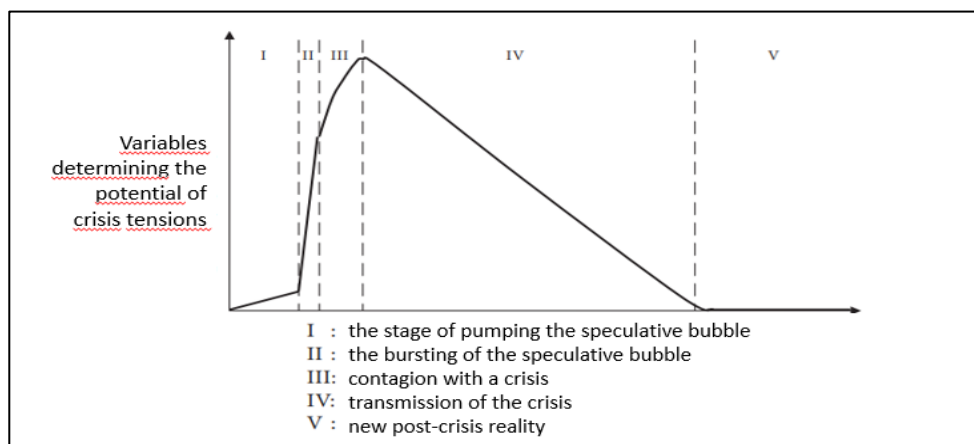
depiction of the nature of this phenomenon, as it shows all the irregularities and dysfunctions of the economy. Crises also end certain stages of economic epochs, which gives rise to a sense of the need to build a new reality and look for more effective solutions, both in the regulatory and institutional spheres.

The crisis in the light of the concept of the crisis life cycle

The constantly progressing globalization processes are the main factor shaping the world economy. In recent years, they have gained particular importance, strongly influencing both the structure of the entire economy and its sectors. The concept of globalization can be understood as the process of merging individual states and economic structures, which leads to the unification of the economy on a global scale. The phenomenon of globalization causes that the administrative role of the state is increasingly reduced, an example of which may be the flow of goods, services, capital and people³. This means that individual economies of countries are globalized or open.

To build an effective strategy for counteracting economic crises, it is necessary to make a diagnosis that allows determining the stage of the crisis. Thanks to the diagnosis, we can notice individual phases and changes and estimate the potential of the phenomenon. Figure 1 below shows the stages of the crisis life cycle.

Figure 1. Stages of the crisis life cycle.



Source: Own study based on P. Komorowski, *Przebieg kryzysu gospodarczego w cyklu życia*, [in:] R. Bartkowiak, P. Wachowiak (eds.), *Wiedza i bogactwo narodów. Kapitał ludzki, globalizacja i regulacja w skali światowej*, Warsaw 2003, p. 282.

³ W. Morawski, *Fale globalizacji i globalne rządy. Master of Business Administration*, Warsaw 2009, pp. 22-32.

In the first stage, there is a dynamic accumulation of crisis-generating factors. This is called inflating a speculative bubble. When the bubble bursts, the uncontrolled spread of the effects of the explosion begins. During this stage, crisis processes hit individual economies with varying degrees of severity. Local threats, therefore, depend on previous internal conditions. The phenomenon of a crisis, however, always comes as a surprise. Risk assessment is usually underestimated as growth projections are based on projections. This phase is characterized by a short period and has tremendous destructive power. The transmitting crisis shocks are referred to as the 'transmission mechanism' or the effect of 'contracting crisis phenomena'. They describe the undesirable consequences of economic crises. The following areas can be distinguished among the dependencies of crisis processes;

- transmission or infection channels;
- the speed of transfer of crisis processes;
- the size of the phenomenon in terms of territories⁴.

State stabilization policy

Minimizing the effects of economic crises by the state takes place through the application of appropriate policies, including, inter alia, fiscal and monetary policies of an expansionary or restrictive nature. All activities undertaken by state bodies within the framework of the above-mentioned policies are referred to as the state stabilization policy. These activities boil down to reducing fluctuations in the business cycle or making adjustments in its normal course⁵.

Fiscal policy, also known as budgetary or tax policy, is defined in the economic literature in various ways. One of the definitions states that it is "the use of government expenditure and revenues to achieve specific goals, especially stabilizing the economy, by counteracting cyclical fluctuations and limiting unemployment and stopping price increases"⁶. David Begg, on the other hand, defines fiscal policy as a set of government decisions on spending and taxes aimed at keeping production close to its potential level⁷.

There are two types of fiscal policy, i.e. expansionary fiscal policy and restrictive fiscal policy. The former is used in the period of depression or economic downturn, while the latter is used in the period of economic expansion.

⁴ A. Nosek, A. Pietrzak, *Efekt domina, czyli międzynarodowa transmisja kryzysów – na przykładzie współczesnego kryzysu finansowego*, [in:] W. Michalczyk (ed.), *Wybrane problemy gospodarki światowej pierwszej dekady nowego wieku*, Wrocław 2009, pp. 84-85.

⁵ R. Barczyk, M. Lubiński, *Dylematy stabilizowania kultury*, Poznań 2012, p. 9.

⁶ K. Markowski, *Rola państwa w gospodarce kapitalistycznej*, Warsaw 1989, p. 3.

⁷ D. Begg, *Makroekonomia*, Warsaw 1992, p. 74.

In the case of an expansionary policy, the state increases expenditure and reduces taxes, which stimulates the economy and increases the gross domestic product. On the other hand, conducting fiscal policy comes down to the fact that the state reduces expenses and increases taxes, which reduces the deficit and slows down the economy⁸.

It can be noticed that, in the theory of public finance, the views of economists on the goals and forms of fiscal policy differ. According to the Keynesian school, increasing aggregate demand both increases production and reduces unemployment. On the other hand, monetarists and representatives of the new classical economy believe that fiscal policy should not lead to the phenomenon of a budget deficit. Improving the economic situation and increasing employment thanks to an expansionary fiscal policy occurs only in the short term, and thus may not contribute to the growth of aggregate demand at all⁹. According to them, in the long run, the application of this policy leads to an increase in inflation, which is an undesirable phenomenon.

Conducting an active fiscal policy is associated with certain difficulties, among which can be mentioned¹⁰:

- time delays – the government has delayed data on the current state of the economy;
- effects stimulated in autonomous demand – making changes in government expenditure also affects other components of consumption, such as consumption and investment;
- uncertainty – the value of the multiplier is calculated using historical data and it is extremely difficult to forecast the economic activity of private entities regarding future investments;
- political constraints – the policy pursued by the state may meet with resistance from the public, which may lead to protests. Expansive fiscal policy can also be used by governments to increase the support of their voters¹¹.

Fiscal policy can play an effective stabilizing function, provided that government institutions take active measures and anticipate their effects through the ongoing observation of market trends.

Undoubtedly, the main advantage of automatic stabilizers is the fact that they operate automatically and the assessment of the scale of demand shocks is not required. It is also worth remembering that some stabilizers can be both automatic and discretionary – requiring a political decision. An example of

⁸ *Podstawy Makroekonomii*, Z. Dach, B. Szopa (eds.), Kraków 2004, pp. 124-125.

⁹ S. Sztaba, *Ekonomia od A do Z*, Warsaw 2007, pp. 355-357.

¹⁰ D. Begg, S. Fischer, G. Vernasca, *Makroekonomia*, Warsaw 2014, p. 96.

¹¹ M. Łuszczuk, *Ograniczenia polityki fiskalnej państwa i ich konsekwencje dla jednostek samorządu terytorialnego*, "Ekonomiczne Problemy Usług", No. 100, 2012, p. 131.

such a stabilizer is, for example, taxes, which can work both without or as a result of a decision made by the state¹².

Over the centuries, economic crises, i.e. periodic declines in economic growth, have become an integral part of the market economy. The beginning of their occurrence dates back to the second half of the 16th Century, i.e. the period when the seeds of the creation of this economy can be found¹³. It stands out among the crises that have had the greatest impact on the world economy:

- The Great Depression (1929-1933),
- Oil crisis (1973),
- The financial crisis (2007-2009),
- The economic crisis caused by the SARS-Cov-2 coronavirus (2019-2021).

At the end of 2019, another crisis began around the world, caused by the Chinese-origin SARS-Cov-2 coronavirus. This virus quickly began to spread all over the world, gaining the name of a pandemic. It causes not only high morbidity and mortality but also has negative economic, social and political effects. An important factor influencing the economic effects of the epidemic is its extent. The epidemic affects both weakly developing countries and the largest world economies. Considering the 21st Century, it is the first global event that forced most countries in the world to subordinate the hitherto operation of the economy to the health security of citizens.

The strategy of effective public management during the pandemic in Europe and other countries is divergent and raises many doubts. To limit the spread of the virus, the governments of most countries decided to temporarily close the economy, which is associated with a significant downturn in the following years. The appearance of the SARS-Cov-2 coronavirus has 'frozen' the world economy¹⁴. Many small and medium-sized enterprises have collapsed and the labour market situation has dramatically worsened. The pandemic has also contributed to a significant increase in social inequality. Kristalina Georgieva, head of the International Monetary Fund, compares the effects of the pandemic to the Great Depression, initiated by the stock market crash of 1929. According to the latest OECD report, world GDP will fall by 4.2%. On the other hand, the estimated global economic growth in 2020 will amount to approximately 3.7%¹⁵.

¹² A. Krajewski, *Funkcjonowanie automatycznych stabilizatorów koniunktury na przykładzie Republiki Federalnej Niemiec w latach 1980-1998*, "Legal, Economic and Sociological Movement", No. 1, 2005, p. 189.

¹³ M. Bochenek, *Rozważania historyczno-semantyczne na temat kryzysów ekonomicznych*, "Acta Universitatis Nicolai Copernici. Ekonomia", Vol. XLIII, No. 2, 2012, pp. 147-159.

¹⁴ J. Męcina, P. Potocki, *Wpływ COVID-19 na gospodarkę i rynek pracy w Polsce - wyciąg z raportu badawczego, Ekspertyza 11*, 2020, p. 1.

¹⁵ *OECD Economic Outlook*, 2021 <<https://www.oecd.org/economic-outlook>> (30.06.2021).

Due to the development of SARS-CoV-2 vaccines, the prospects for the development of the world economy have improved significantly. The relatively coherent government policy regarding the anti-virus strategy and various state aid programs also contributed to this. It is worth noting, however, that the recovery of the pre-pandemic economy will not be uniform across countries. Before the outbreak of the epidemic, some countries were already on the verge of recession, which is further aggravated by the economic slowdown caused by the virus. Although the general development prospects for the world economy look better, the situation of small entrepreneurs and unskilled workers is extremely difficult.

Among the listed effects of the pandemic, the most important are economic aspects. It is hardly surprising because almost all spheres of human activity are reduced to the financial basis. Marian Gorynia points to five areas of economic changes caused by the virus:

- economic growth of countries and the issue of debt;
- consumerism as a description of human consumption behaviour;
- digitization;
- environmental protection;
- globalization¹⁶.

The area on which almost all available economic forecasts agree is the country's economic growth and the issue of debt. The available growth forecasts expect a significant slowdown in global economic processes. Possible differences in assessments concern only the strength of the anticipated recession and the geographical distribution into which it will translate. Growing indebtedness is a factor that will significantly complicate the situation of countries in the future. It is influenced by various types of aid programs undertaken, aimed at mitigating the effects of the pandemic. The pandemic is projected to reduce irrational consumerism. This is only a prediction that we will be able to check only in the coming years. Perhaps, however, the return to the pre-virus reality will take place much faster than we all expect. Most of the economic analyzes presented also point to the accelerated digitization and digitization of most forms of business activity. Looking at it from this point of view, we can see hope in reducing the exploitation of the natural environment. Additionally, the analyzes indicate that the pandemic in the short and medium-term will slow down the ongoing globalization processes¹⁷.

Undoubtedly, the effects of the economic crisis caused by the SARS-Cov-2 coronavirus will change thinking in many areas, not only economic. We can

¹⁶ M. Gorynia, *Czy Covid-19 zmieni gospodarkę i nasze myślenie o niej?*, <<https://www.rp.pl/opinie-ekonomiczne/art656141-marian-gorynia-czy-covid-19-zmieni-gospodarke-i-nasze-o-niej-myslenie>> (30.06.2021).

¹⁷ *Ibidem*

expect a revolution, or at least an evolution of management goals on a global scale. The economic goals of individual countries and global corporations will change. However, the question remains whether there is a mechanism on an international scale that makes it possible to coordinate all activities. A mechanism that would allow for the effective and efficient implementation of the developed changes.

The impact of the economic crisis in 2020 on the macroeconomic situation in Germany

The spread of the coronavirus around the world is having a big impact on the global economy. Due to the lack of adequate data, inaccurate models and uncertainty as to the government's actions, economic forecasts are subject to greater uncertainty than usual. It is very difficult to predict how a pandemic will develop. To minimize the effects of a pandemic, countries undertake various types of activities that directly affect the labour market.

The COVID-19 pandemic and the implementation of the required countermeasures meant that the German economy experienced its largest contraction in history in the first half of 2020. Demand for hotel and leisure services has been largely constrained by distancing measures and the increasing incidence of the virus. The pandemic also threatened the dynamics of the development of the service sector, which supported the economy in earlier periods of weak growth¹⁸. The effects of the pandemic also affected the situation in the labour market. The ongoing pandemic meant that the labour market had to adapt to the changes in the environment. The conditions and the way of organizing work have changed significantly. An example of this is the extended scope of working from home. Before the pandemic, Germany was relatively lagging in the proportion of people working remotely¹⁹. This changed during the pandemic, as in many industries and occupations it was the only way to continue the economic activity. In particular, in professions that did not require the employee's physical presence at the workplace. The transition to this model of work, however, carries several consequences, among which the difficulties in balancing private life with work can be mentioned. An additional obstacle for working people was the closure of schools and care and educational facilities by the government.

In Germany, there have also been many doubts about how to regulate the rules of working from home. As in Poland, there is no legal framework for working from home in this country. There is concern about the emergence of a new

¹⁸ W. Eichhorst, P. Marx, et al., *COVID-19 Crisis Response Monitoring: The Second Phase of the Crisis*, Bonn 2021, s. 3.

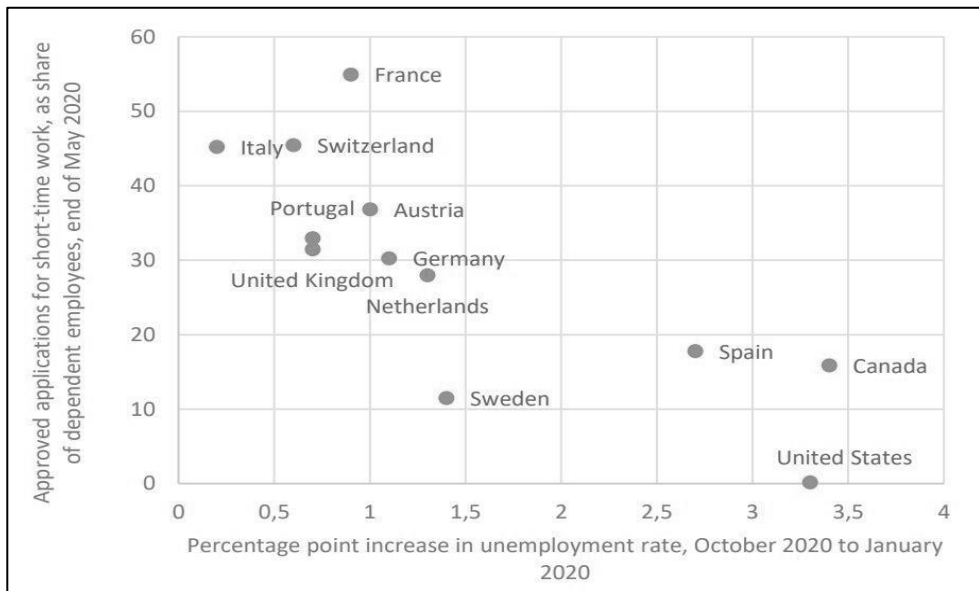
¹⁹ *Ibidem*.

division in the labour market between those who can work from home and those who work in the service sector²⁰. The invention and approval of the SARS-CoV-2 coronavirus vaccines, and thus the optimistic expectations of society, contribute to a relatively quick revival of the demand for products and services.

The impact of the economic crisis in 2020 on the macroeconomic situation in Italy

Italy was the first European country that, to stop the spread of the SARS-CoV-2 coronavirus, decided to introduce the so-called lockdown. This was mainly due to the very high mortality rate of infected people. In managing the crisis, the Italian government decided to introduce a series of measures to limit the economic consequences of the pandemic. Short-term work programs and the temporary suspension of layoffs allowed for temporary protection of the labour market in the initial period of the pandemic, as shown in Figure 2.

Figure 2. The relationship between unemployment and the implementation time of short-term work (%).



Source: W. Eichhorst, P. Warx, *op. cit.*, p. 4.

²⁰ R. Holler, L. Janys, *Labour Supply in the Early Stages of the COVID-19 Pandemic: Empirical Evidence on Hours, Home Office, and Expectations*, Bonn 2020, p. 18.

Comparing Germany to Italy, we see that the country has gradually introduced short-term work, which has resulted in a relatively steady increase in unemployment.

The temporary closure of schools and kindergartens meant that employees of the private and public sector caring for children under 12 or people with disabilities were granted the right to leave. The total length of leave for both parents was up to 15 days. During this leave, parents were entitled to 50% of their remuneration. As an alternative to the holiday, you could also apply for a subsidy to cover the costs of childcare for € 600. In the case of people working in the health care or emergency services, this amount was – € 1000. On the other hand, self-employed people caring for children aged 12-16 years, acquired the right to unpaid leave for the period of school closure²¹.

Due to the pandemic, the Italian government issued a regulation on specific measures in the field of distancing, hygiene and cleaning at workplaces. He also recommended adopting specific security protocols to minimize the risk of contracting the virus²².

There is no doubt that Italy is one of the countries heavily affected by the pandemic. Increasing morbidity and deaths are driving the government to take restrictive measures and measures. Looking at the macroeconomic forecasts, it can be concluded that the Italian economy is on the path of recovery and is slowly recovering from the losses incurred as a result of the pandemic.

The impact of the economic crisis in 2020 on the U.S. macroeconomic situation

The coronavirus pandemic has hit the U.S. economy very hard. Isolation orders have forced many companies to close or limit their businesses. The International Monetary Fund (IMF) has published a report in which it estimates that the U.S. GDP will decline by 3.4% in 2020. The forecast for 2021 assumes an increase of over 5%.

A large number of unemployed people or people who have dropped out of the labour market have entered the market. There has been a reversal of the 10-year progress made to return to full employment after the 2008 financial crisis. A large proportion of people are forced to retrain or go through several temporary jobs before obtaining a long-term contract²³. Older and low-skilled workers are the most vulnerable to long-term unemployment.

²¹ *Ibidem*

²² M. Biasi, *COVID-19 and labour law in Italy*, Milan 2020, p. 308.

²³ V. Gregory, G. Menzio, D. G. Wiczer, *Pandemic Recession: L or V-Shaped?*, <<https://www.nber.org/papers/w27105>> (30.06.2021).

The outbreak of the epidemic caused unemployment to rise to a post-war record. At the beginning of 2020, the unemployment rate was as high as 14.7%. After the restrictions were eased, many workers were dismissed by their previous employers, which pushed the unemployment rate down to 8.4% in August 2020. A further decline in unemployment is likely to be more gradual, as workers in the sectors most affected by the pandemic – e.g. hospitality, tourism, food services and entertainment – are very often low-skilled, resulting in long periods of job search²⁴.

The paroxysm of the COVID-19 epidemic triggered the activation of fiscal and monetary policy instruments. An active fiscal policy assisted unemployed workers and companies facing financial difficulties in a short time. Comprehensive support was introduced, including but not limited to:

- additional unemployment insurance;
- one-off payments for families;
- financial assistance to State Governments;
- redeemable loans backed by the Treasury for small businesses – retaining employees and increasing the opportunities of the healthcare sector²⁵.

The conditions and organization of work have changed significantly. As in many countries, there has been a sharp increase in remote work – mostly office workers. Monthly research by the US Bureau of Labour Statistics showed that in May 2020, when the number of infected persons peaked and restrictions on the operation of companies were very common, as many as 35% of employees worked remotely. On the other hand, the percentage of people who were unable to work due to the pandemic was as much as 19%.

With the advent of the second and third waves of the virus, the United States again began to impose restrictions on opening companies. Many employers have also decided to work remotely. Therefore, the share of people working remotely and not able to work will increase.

With the ever-increasing number of cases of infected people, the US government has made efforts to minimize the effects of the pandemic. Many measures have been taken to slow infection, but as with other countries, it will take a long time to stop the epidemic. Rebuilding the economy as well as the labour market will take several years²⁶.

²⁴ J. M. Barrero, N. Bloom, S. J. Davis, *COVID-19 Is Also a Reallocation Shock*, Becker Friedman Institute Working Paper No. 2020-59, Chicago 2020.

²⁵ *OECD Economic Outlook...*

²⁶ S. Housman, *COVID-19 Crisis Response Monitoring. United States*, Bonn 2020, p. 10.

The impact of the economic crisis in 2020 on the macroeconomic situation in Sweden

Sweden is one of the few European Union countries that decided to apply less restrictive measures to mitigate the spread of the COVID-19 virus. A short-term work program was introduced which covered as much as 9% of the total workforce. The measures taken by the Swedish government were costly but looking at sound fiscal finances stability can be expected both in the short and medium-term.

Given the labour market situation, the Swedish government imposed several targeted economic policy measures, which mainly boiled down to:

- reducing the financial burden resulting from sickness absenteeism of employees;
- protection of companies and jobs;
- increasing access and generosity under the unemployment insurance scheme.

The outbreak of the pandemic also changed the conditions and organization of work. The Swedish Public Health Agency recommended all employees who can work remotely – work from home. The lack of closure of schools and childcare facilities ensured an effective supply of labour, as parents were able to come to work if necessary. Due to the lack of distraction from children, the efficiency of the work performed increased.

The long-term perspective will show us whether the strategy adopted by Sweden has paid off. The second wave of the disease caused the country to withdraw from initially chosen mild restrictions, and the actions taken by the government are more decisive. Despite the effects of the pandemic, Sweden remains in the black, which is related to good economic health before the pandemic breaks out.

The impact of the economic crisis in 2020 on the Polish economy

The global economic crisis caused by the coronavirus interrupted Poland's socio-economic progress. The pandemic happened at a time of intense increase in the standard of living in the community, as shown by historically low unemployment and poverty rates. Already at an early stage of the pandemic, the Polish government decided to introduce several measures to limit the spread of the virus. Due to measures taken by the government, the number of infections in the first quarter of 2020 was reduced. After lifting some of the restrictions, production and consumption recovered quite quickly. However, the second and third waves forced the implementation of more restrictive measures, which significantly affected the Polish economy.

The coronavirus pandemic has had a very strong impact on the labour market in Poland from the very beginning. Certain industries such as gastronomy, tourism, and the cultural and entertainment sectors have been particularly affected by government restrictions. Despite the financial support provided by the government, many companies were unable to maintain liquidity. In the second quarter of 2020, there was a huge wave of job losses – about 100,000, of which about 1/3 were redundancies as a result of the pandemic. In the first quarter, this percentage was approximately 1/4²⁷.

According to Grant Thornton and Element's research approx. 238 thousand job offers were published on the 50 largest recruitment portals in August 2020. It's about 21.8% less than in the same period a year ago (approx. 305 thousand in August 2019). Although the Polish economy has been almost completely freed from the lockdown and the formal restrictions, related to it, since June 2020, the labour market in Poland is still far from the pre-pandemic state. On the one hand, this is a much smaller decline than at the peak of the lockdown, when the annual decline in the number of job offers amounted to 40-50%. On the other hand, however, the fact that August 2020 was the second consecutive month in which the declines – slightly, but still – deepened, seems somewhat disturbing. In June, the number of job offers dropped by only 16.3%, and in July by 18.9%. These results may therefore indicate a certain stabilization in the labour market and the formation of a 'new normality', in which the demand for labour is shrunk by about one fifth compared to 2019²⁸.

Before the start of the pandemic, remote work in Poland was not very popular and was met with reserve among employers. Most companies treated it as a kind of benefit – the possibility of several days of remote work a month. In the initial phase of the pandemic, companies where it was possible to implement such a model of work because limiting the mobility of the population contributed to the reduction of virus transmission.

For many employers, a forced transition to remote work turned out to be a good solution. It was also noticed that this model has many benefits and threats. The advantages include high flexibility and time-saving. On the other hand,

²⁷ *Wpływ epidemii COVID-19 na wybrane elementy rynku pracy w Polsce w czwartym kwartale 2020 r.*, <<https://stat.gov.pl/obszary-tematyczne/rynek-pracy/popyt-na-prace/wplyw-epidemii-covid-19-na-wybrane-elementy-rynku-pracy-w-polsce-w-czwartym-kwartale-2020-r-4,4.html>> (30.06.2021).

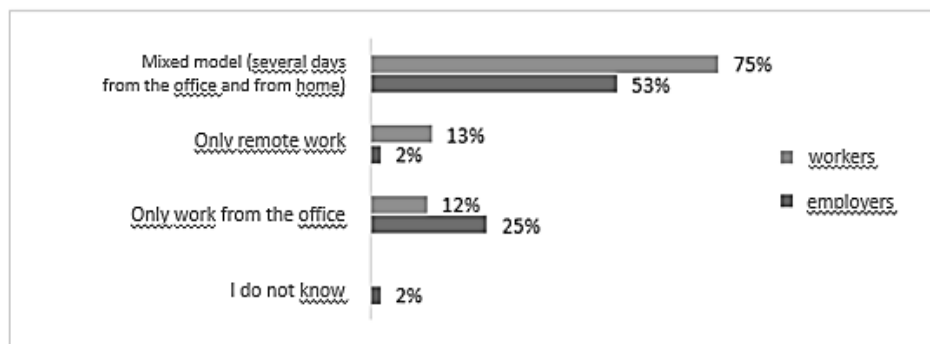
²⁸ *Rynek pracy w czasie COVID-19. Jak przez kryzys gospodarczy spowodowany pandemią koronawirusa zmienił się rynek pracy w Polsce. Edycja V: sierpień 2020*, <<https://grantthornton.pl/wp-content/uploads/2020/08/Rynek-pracy-w-czasie-koronawirusa-w-lipcu-RAPORT.pdf>> (30.06.2021).

threats indicate a decrease in efficiency and the feeling of being part of a team²⁹.

As restrictions are reduced, companies will have to decide what work model they will use in the future.

As shown in Figure 3 below, the expectations of employees and employers about the future work model differ. As many as 80% of the surveyed people express the willingness to stay to a different extent while working remotely – mixed model (75%), only remote work (2%), only work from the office (25%), only remote work (13%), only work from the office (12%), I do not know (2%)³⁰.

Figure 3. Companies' plans for the continuation of remote work.



Source: *Ocena nowej rzeczywistości rynku pracy...*

It is visible that the majority of employees and employers would like to work in a mixed system, avoiding complete remote work. It is worth noting that the Labour Code does not define the issue of remote work as a whole, which is associated with many unknowns for employers. However, it can be said with certainty that the COVID-19 pandemic has largely contributed to the widespread use of the remote working model. In the long run, we will see how many companies will decide to use it and in what form.

The pandemic has largely affected the functioning of the labour market. The employers' view of acquiring, retaining talent and working remotely has changed. In the face of the crisis, many solutions were implemented that turned out to be more or less effective. Individual industries and sectors were not

²⁹ *Praca zdalna – rewolucja, która się przyjęła. Teraz czas na zmiany*, <http://www.pte.pl/pliki/2/36/Future_Business_Institute.pdf> (30.06.2021).

³⁰ *Ocena nowej rzeczywistości rynku pracy – perspektywa pracowników i pracodawców*, <https://prowly-uploads.s3.eu-west-1.amazonaws.com/uploads/landing_page_image/image/289894/b75c42f8d3eed0f43bae03f9c75329ec.pdf> (30.06.2021).

equally affected by the effects of the pandemic. Some industries have lost and some have gained. Government-imposed restrictions, despite initial support, made it impossible for many companies to maintain liquidity. Business leaders had to learn to manage in a crisis while learning lessons for the future. Poland is on the road of slow reconstruction in the new post-pandemic reality.

Summing up, we can expect that the key change in the labour market in the coming decade will be shifted towards employment structure services. Additionally, Poland will have to face the challenge of the prolonged professional activity of society. It can be expected that in the labour market there will be fierce competition among companies for human resources. The progressing demographic processes will force an increase in the number of available forms of lifelong learning. The pace of implementation of individual processes will depend on many factors, including the employment structure taking into account the size of the companies. In the coming decade, Poland should focus on reducing the percentage of micro and small companies. Large enterprises have a greater ability to invest, develop their competencies, and thus compete on the global market.

Multi-criteria evaluation of selected work models used by companies

The survey was conducted among four HR Business Partners managing human resources in medium-sized companies or large corporations in Poland. During the pandemic, these people successfully implemented a total remote model for the company. Before the pandemic, the companies in which decision-makers worked operated in a hybrid model, working remotely several days a month. Therefore, the selected group of experts knows the implementation, functionality, benefits and effects of the remote work model.

The study presented below was conducted using the Analytical Hierarchical Process (AHP), which is one of the multi-criteria methods of decision making. In this study, the AHP method, based on four main criteria, allowed for the selection of the best work model for companies. The research tool in the conducted study was an interview with the questionnaire. It contained such elements as: the aim of the study, the decision problem as well as criteria, sub-criteria and possible decision variants. At each level of the hierarchical structure of the model, the individual elements were compared in pairs, each with each element, assessing the strength of their influence. Each comparison was made on the 9-point scale T. L. Saaty³¹.

As part of the main criteria, 4 criteria were distinguished:

- social area – includes, among others communication and relations

³¹ T. Saaty, *Decision Making for Leaders: The Analytic Hierarchy Process for Decisions in Complex Word*, Pittsburgh 2001, p. 73.

- between employees and their superiors;
- legal area – covers various types of legal regulations applicable in the areas of the company's operations;
- organizational area – covers the company's strategy, mission/vision, and implemented procedures and policies;
- technological area – includes all kinds of tools and technological solutions that allow for more effective management and operation of the company.

The following sub-criteria have been distinguished within the ‘social area’ criterion:

- deteriorating mental health of employees – remote work makes it difficult to maintain a balance between private and work life, as well as increases the growing sense of isolation;
- problems with communication and relations among employees – difficulties with reading non-verbal communication and the use of simplified forms of communication (various types of communicators) cause problems in establishing and maintaining employee relationships;
- decrease in effectiveness/efficiency of work – remote work is largely associated with less control, which in many cases results in an increase in distraction during work. This is also influenced by, among others limited contact with the team and problems with maintaining self-discipline.

In the second criterion, ‘legal area’, the following sub-criteria have been specified:

- lack of regulations governing OHS at remote workplaces – the current regulations do not specifically regulate health and safety issues during remote work, which may be a potential problem for employers;
- no regulation of remote work in the Labour Code – currently, in the Labour Code, we can only find a definition of telework;
- the need to supervise work outside Poland – the employer must take into account tax, insurance and immigration issues.

The third criterion ‘organizational area’ includes the following sub-criteria:

- the need to adapt the existing organizational culture of the company – the implementation of the remote work model in the company is associated with the obligation to change the organization of work, adapt to new conditions and ensure business continuity with care for the mental health of the employee;
- the need to adjust employee benefits – the remote work model used by the company influences the expectations of employees as to the benefits received;
- the need for companies to implement appropriate procedures – a change in work organization affects the change of procedures already existing

in the company or the need to create new ones.

The last criterion 'technology area' consists of the following sub-criteria:

- the need to use technology in most areas of the company's operation – a remote work system is associated with the need to implement new technological solutions to improve the functioning of the company;
- the need to ensure data security – the use of a remote work system by companies requires taking actions to ensure the security of the processed information;
- the need to provide remote work tools – the employer, when commissioning an employee to work remotely, is obliged to provide the tools and materials necessary for the work.

The study distinguishes three variants of the best work model for companies:

- remote work model – a form of work organization in which employees provide work outside the workplace;
- the model of stationary work – a form of work organization in which employees provide work within the workplace;
- hybrid work model – combining the remote and stationary work model.

Research method

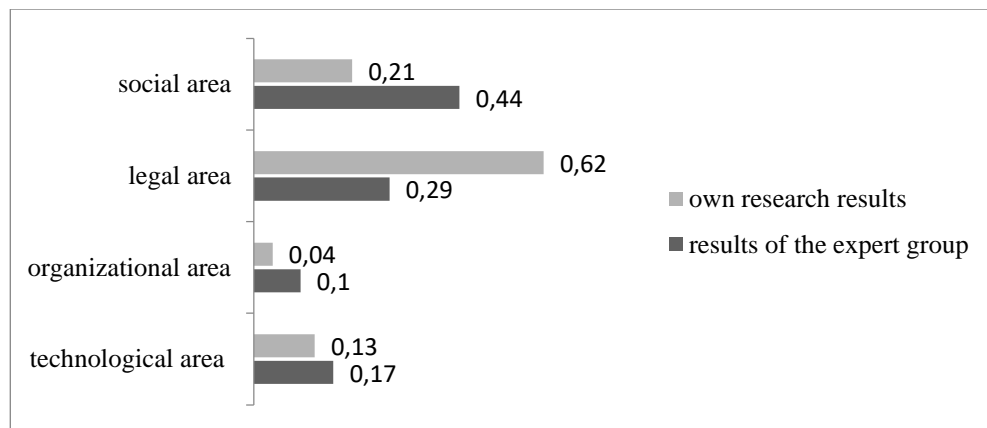
The Analytical Hierarchical Process (AHP) was used to solve the problem at work³². The presented consistent set of criteria allows for the selection of the optimal decision variant for a given goal.

Development of research results

The results of own research and research carried out among four HR Business Partners showed some discrepancies in the perception of the power of influence of individual areas on the selection of the best work model for companies. In my research, the most important criterion turned out to be the legal area (0.62), while in the research of a group of experts – the social area (0.44). The second highest value was assigned to the social area – own research (0.21) and the legal area – a group of experts (0.29). The third most important criterion showed agreement with the slight difference in values – 0.13 and 0.17, respectively. The organizational area in both cases turned out to be the criterion of the least importance (0.04 and 0.1) (see Figure 4).

³² W. Adamus, A. Gręda, *Wspomaganie decyzji wielokryterialnych w rozwiązywaniu wybranych problemów organizacyjnych i menedżerskich*, "Badania Operacyjne i Decyzje", No. 2, 2005, p. 10.

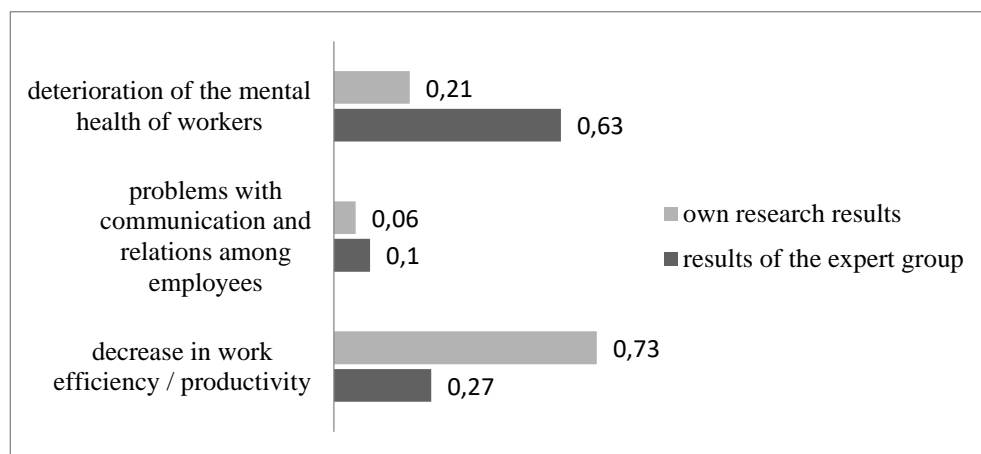
Figure 4. The hierarchy of importance of the main criteria - the results of own research and the group of experts.



Source: Own study based on research.

In the main criterion 'social area' there was a large discrepancy in the assessment of the most significant sub-criterion. The greatest significance in the authors' research was attributed to the decrease in work efficiency/productivity (0.73). On the other hand, a group of experts indicated the deterioration of the mental health of employees (0.63). In both cases, communication and relationship problems among employees were the least significant (see Figure 5).

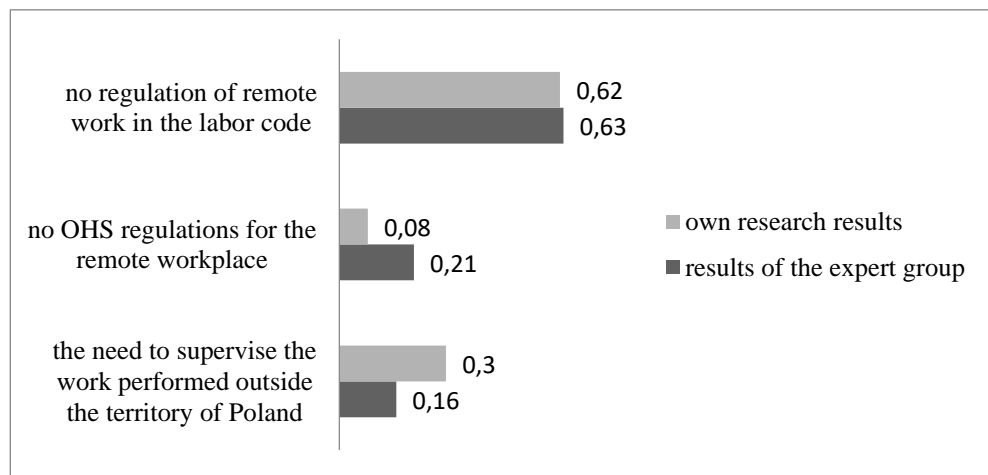
Figure 5. Comparative hierarchy of the sub-criteria importance of the criterion 'Social area' - values of local priorities.



Source: Own study based on research.

In the legal criterion, the local values for the most important sub-criterion – the lack of regulation of remote work in the Labor Code, had very similar values (0.62 and 0.63). On the other hand, the second most important sub-criterion showed a considerable discrepancy. According to the authors' research, the need to supervise work outside the territory of Poland was of greater importance, while the experts pointed to the lack of provisions regulating occupational health and safety at the remote workplace (see Figure 6).

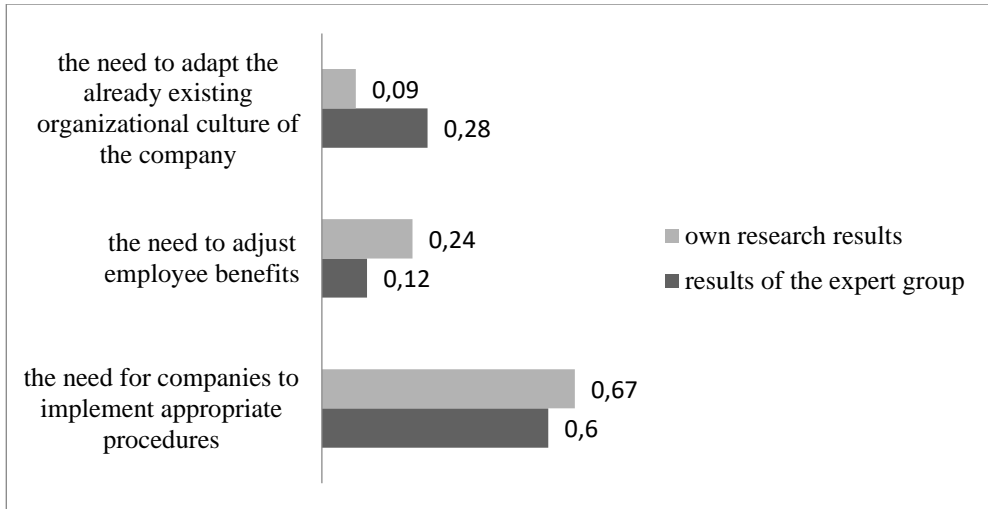
Figure 6. Comparative hierarchy of the sub-criteria importance of the criterion 'Legal area' – local priority values.



Source: Own study based on research.

The organizational area, both in own research and in the research conducted among experts, shows compliance with the highest significance of the sub-criterion: the need for companies to implement appropriate procedures. The obtained values are very similar - 0.67 and 0.6. In my research, the next highest value was the need to adjust employee benefits (0.24), and then the need to adjust the already existing organizational culture of the company (0.09). According to the group of experts, the second and third most important sub-criteria turned out to be, respectively, the need to adjust the existing organizational culture (0.28) and the need to adjust employee benefits (0.12) (see Figure 7).

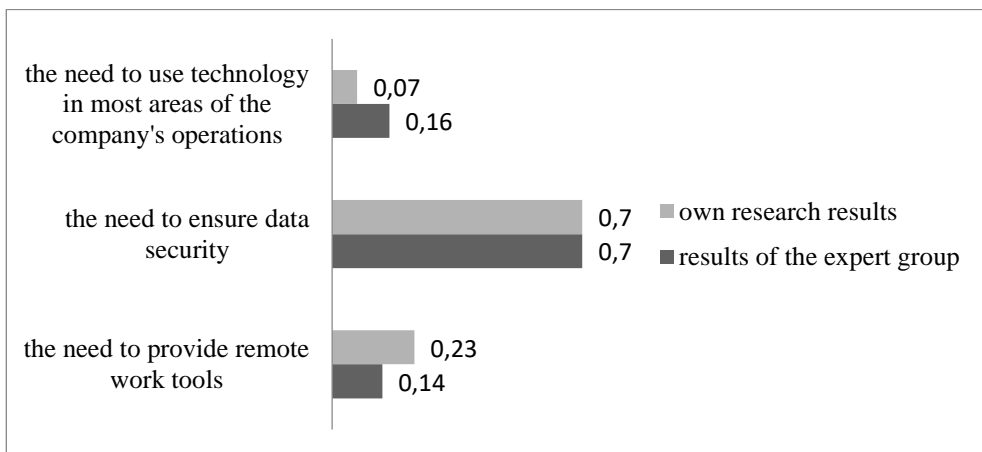
Figure 7. Comparative hierarchy of importance of sub-criteria for the criterion 'Organizational area' – values of local priorities.



Source: Own study based on research.

The technological area, both in own research and in the research conducted among experts, shows high compliance. The obtained values are very similar to each other, and in the case of the second sub-criterion: the need to ensure data security – the same (0.7). Comparing my research to the group of experts, more weight was given to the third sub-criterion: the need to provide remote work tools (see Figure 8).

Figure 8. Comparative hierarchy of importance of the sub-criteria for the 'Technological area' criterion – local priority values.



Source: Own study based on research.

For individual local values, global values determining the importance of individual sub-criteria in the AHP model were calculated. Table 2 presents the values of the main criteria, local priorities and global priorities obtained in the own research. Table 3 shows the analogous values for the group of experts.

Table 2. The results of comparisons with pairs of criteria and sub-criteria in the selection of the best work model for companies in Poland – own research

Main criteria K_i	Priorities P_i	Sub-criteria S_i	Local priorities P_l	Global priorities $P_g = P_i \times P_l$
Social area	0,21	Deterioration of the mental health of workers	0,21	0,0441
		Problems with communication and relations among employees	0,06	0,0126
		Decline in work efficiency / productivity	0,73	0,1533
Legal area	0,62	Lack of regulation of remote work in the labor code	0,62	0,3844
		Lack of OHS regulations for the remote workplace	0,08	0,0496
		The necessity to supervise the work performed outside the territory of Poland	0,3	0,186
Organizational area	0,04	The need to adapt the already existing organizational culture of the company	0,09	0,0036
		The need to adjust employee benefits	0,24	0,0096
		The need for companies to implement appropriate procedures	0,67	0,0268
Technological area	0,13	The need for companies to implement appropriate procedures	0,07	0,0091
		The need to ensure data security	0,7	0,091
		The need to provide remote	0,23	0,0299

		work tools		
$\Sigma=$	1,000			1.000

Source: Own study based on research.

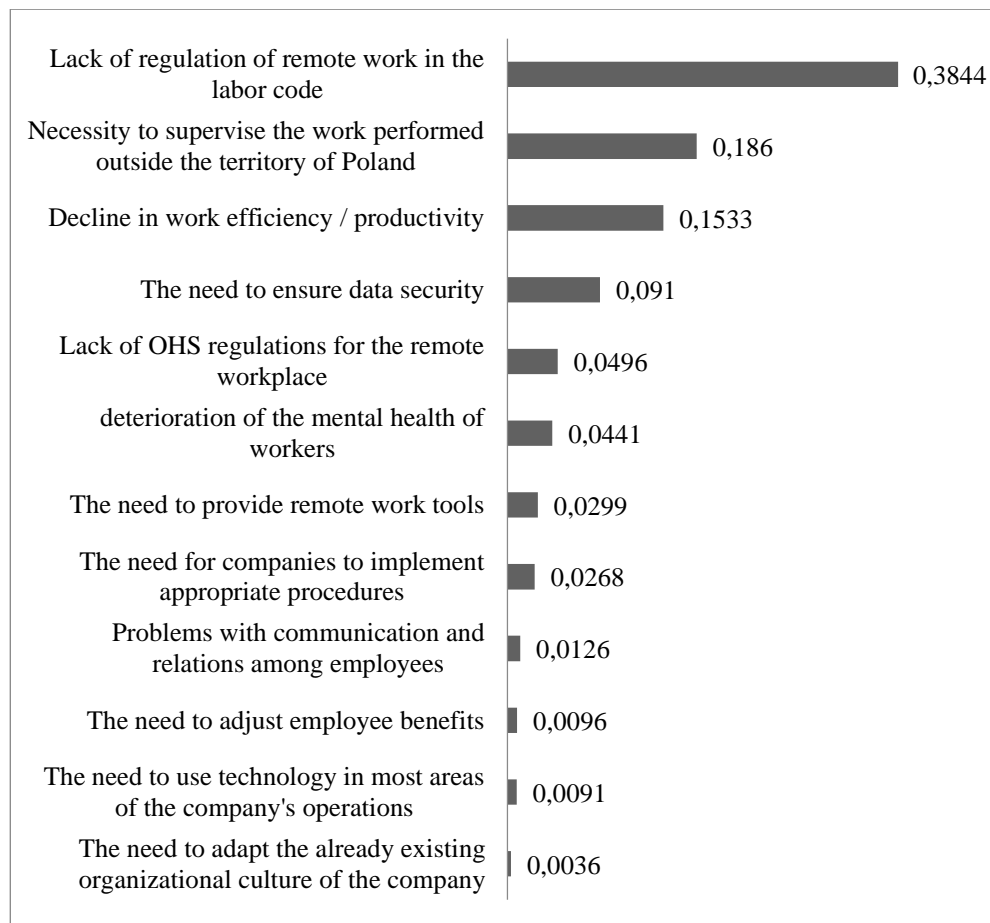
Table 3. The results of comparisons with pairs of criteria and sub-criteria in the selection of the best work model for companies in Poland - a study by a group of experts

Main criteria K_i	Priorities P_i	Sub-criteria S_i	Local priorities P_1	Global priorities $P_g = P_i \times P_1$
Social area	0,44	Deterioration of the mental health of workers	0,63	0,2772
		Problems with communication and relations among employees	0,1	0,044
		Decline in work efficiency / productivity	0,27	0,1188
Legal area	0,29	Lack of regulation of remote work in the labor code	0,63	0,1827
		Lack of OHS regulations for the remote workplace	0,21	0,0609
		The necessity to supervise the work performed outside the territory of Poland	0,16	0,0464
Organizational area	0,1	The need to adapt the already existing organizational culture of the company	0,28	0,028
		The need to adjust employee benefits	0,12	0,012
		The need for companies to implement appropriate procedures	0,6	0,06
Technological area	0,17	The need for companies to implement appropriate procedures	0,16	0,0272
		The need to ensure data security	0,7	0,119
		The need to provide remote work tools	0,14	0,0238
$\Sigma=$	1,000			1.000

Source: Own study based on research.

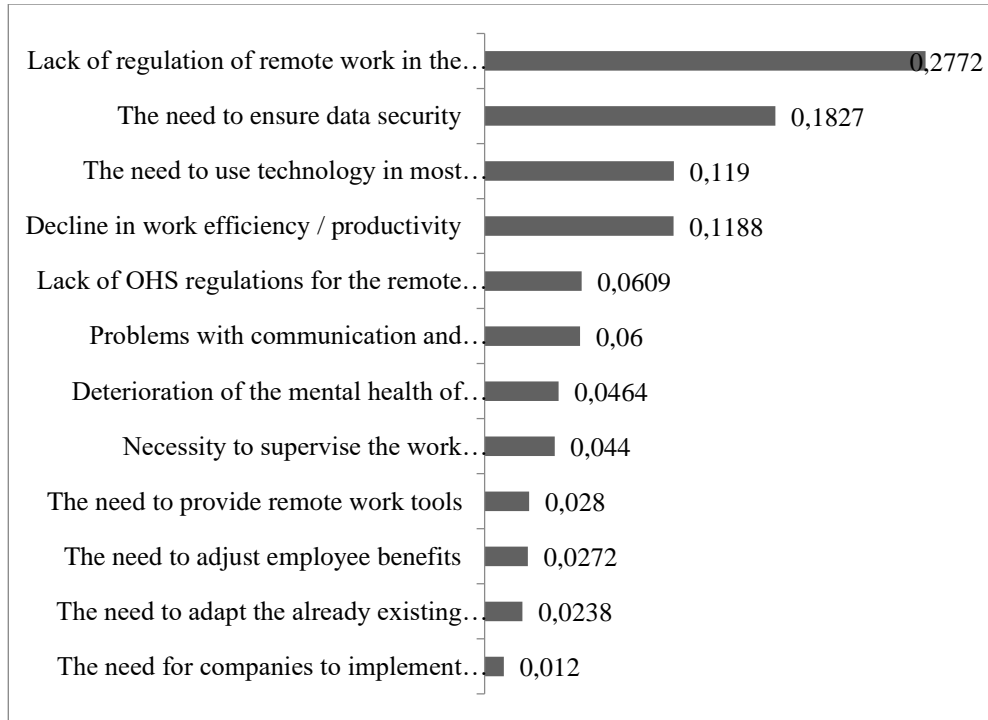
Figures 9 and 10 presented below show the global priority values for own research and the group of experts, respectively. These values are ordered from the highest to the lowest.

Figure 9. Global priority values for the sub-criteria of the AHP model for own research.



Source: Own study based on research.

Figure 10. Global priority values for AHP model sub-criteria for expert group studies.

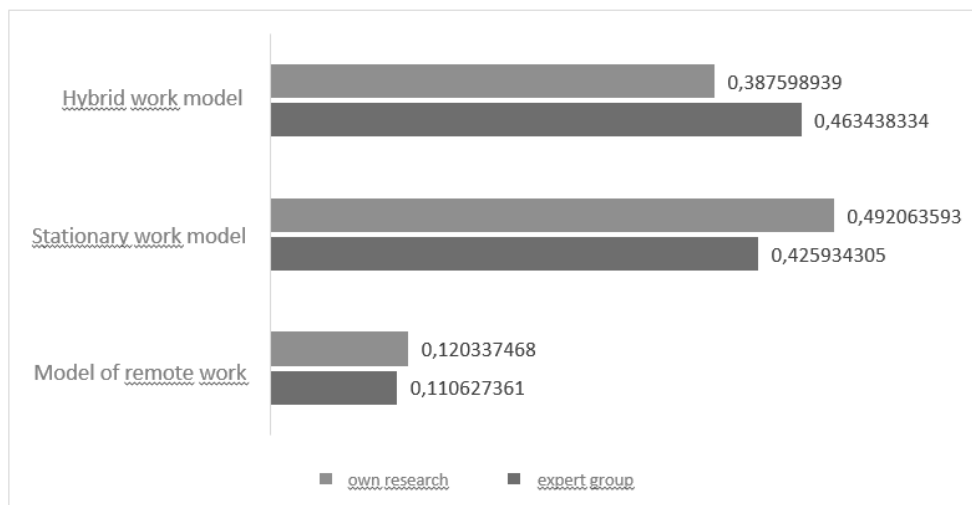


Source: Own study based on research.

The analysis of the global priority values of individual criteria showed that for both groups the greatest cost related to remote work is the lack of regulations for remote work in the Labour Code. Comparing the results of our research and the results of the group of experts, we see a discrepancy between the importance of the sub-criterion: the need to supervise the work performed outside the territory of Poland. In the authors' research, this sub-criterion came second (0.186), while in the group of experts – eighth place (0.044). The third highest value of the global priority in the authors' research was related to the decrease in work efficiency/productivity (0.1533). In the research of the group of experts, this sub-criterion came fourth (0.1188).

Based on the diagram presented in the previous section, the global priorities for individual alternatives were calculated – the model of remote, stationary and hybrid work. Figure 11 below shows the ranking of alternatives in own and expert group research.

Figure 11. Ranking of alternatives in own research and for the group of experts.



Source: Own study based on research.

As can be seen in the figure above, the first place in the ranking in the own research was taken by the stationary work model, while in the group of experts – the hybrid model. In both cases, the remote working model took third place. The values obtained in the research allowed for the selection of the most optimal alternative, referring to the goal adopted in the model. Looking at the figure, it can be seen that the values obtained in the own research and the group of experts are similar. The largest discrepancy is visible in the hybrid work model, as the values fluctuate, respectively, in the own research and the group of experts, above 0.38 and 0.46, respectively. In the stationary work model, we have differences of about 0.07, while in the remote work model the difference is very small 0.01.

Summary and Conclusions

Choosing the best work model for companies is certainly a big challenge. With declining infections and a progressive national immunization program, more and more companies face this kind of dilemma. When choosing the best and, therefore, the most effective model of work for companies, one should take into account, among others: the social, legal, organizational and technological areas. Only a detailed analysis of individual areas and assigning them weights (priorities) allows you to choose the most optimal model to achieve the adopted goal.

The conducted own research and the research of a group of experts show that the approach of companies to remote work has changed. The paroxysm of the pandemic forced many companies to switch to the remote working model. It required the implementation of many procedures and the ability to adapt to rapidly changing conditions. This was a novelty for many employers, as before the pandemic remote work usually occurred in large companies or corporations in the amount of several days a month. The functioning of companies in such a model of work allowed for noticing both positive and negative consequences. There is no doubt that it is very difficult to choose one most effective work model that would work well in all organizations. The choice of the model depends primarily on the industry, the specificity of work and organizational culture. It is also worth noting that each employee is different and their effectiveness and work efficiency in a particular model may differ.

The model of remote work in own research and the group of experts took third place in the ranking, which indicates that for many organizations it is not the most optimal solution. A much better idea is to implement a hybrid work model that includes the model of remote and stationary work. This allows the effects of total working at a distance to be avoided or partially minimized. The hybrid model of work is not a new solution, but it has gained much popularity in the face of the pandemic. In this model, the place of work is not that important anymore, but the goal of the work and the results obtained are what counts. Offices are also starting to be perceived more as places for employee integration.

The following months will show what percentage of companies will decide to switch to a remote or hybrid work model. Due to the specificity of the industry in which it operates, a large part of the organization is not able to function permanently in the remote work model. It was only a temporary solution forced by the outbreak of the pandemic.

The processes triggered by crises are irreversible and permanently change the way the market functions. The literature on the subject does not provide an unequivocal cause of economic crises.

The coronavirus pandemic has hit individual countries to varying degrees. Therefore, the actions taken by governments differ significantly from each other. Minimizing the effects of economic crises usually occurs through the application of appropriate policies, including, *inter alia*, fiscal and monetary policies of an expansionary or restrictive nature. The following years will show the impact of actions taken by the government on individual elements of the economy.

The pandemic had a major impact on the Polish economy, thus interrupting the socio-economic progress that had been sustained for several years. The macroeconomic forecasts show that Poland is on the path of recovery and is slowly making up for the losses incurred due to the pandemic. It will take a few or several years for the economy to fully recover.

The coronavirus also affected the functioning of the labour market. Many jobs have been liquidated and the number of job advertisements posted by employers has decreased significantly. Employers' approach to talent acquisition, retention and remote work has changed. In the face of the crisis, companies implemented many solutions that turned out to be more or less effective. Business leaders had to learn to manage in crisis while learning lessons for the future. The pandemic also contributed significantly to the widespread use of the remote and hybrid working model. In the long run, it will become clear how many companies will decide to use them and in what form.

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