Human Capital Study (BKL)

2019-2020
BKL Study Results

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BKL Study Results
2019/2020

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Dear Readers,

We are presenting the report with the results of the seventh edition of the cross-sectional Human Capital Study (pl. Bilans Kapitału Ludzkiego, BKL Study), a project implemented by PARP and the team of Jagiellonian University experts led by Prof. Jarosław Górniak.

The report is the end product of studies conducted in 2019 and 2020, i.e., directly before and during the COVID-19 pandemic. For the team, this situation is a specific test, which allows them to interpret the dynamic phenomena taking place on Polish labour market and economy that, moved on a sine curve from the booming market in 2019 to the downturn in 2020. Prof. Jarosław Górniak discusses how we faced this challenge in the introduction.

The pandemic also affected the study process itself, as it forced us – the team to replace the CAPI technique with remote methods. I want to thank all respondents and the consortium of research companies, the Public Opinion Research Centre Foundation and PBS Sp. z o.o., which made more than 11,000 interviews possible.

Periodic observations of trends and challenges in the Polish labour market, which were carried out in the BKL, also enabled us to map it for the future. We expect a dynamic development in areas like new technologies, which will generate demand for new types of HR competences. In the BKL Study, we again prove that Poles learn using various sources: one of the primary motivations to learn is to enhance competence to be used at work.

For over 20 years, the Polish Agency for Enterprise Development has been supporting entrepreneurs in acquiring and developing the competence needed to meet the requirements of a competitive economy. We do this through numerous projects and initiatives, acting proactively in the rapidly changing reality. We hope that our efforts and the report will be a source of inspiration for your development.

I hope you will enjoy reading the report.

Mikołaj Różycki
Acting President
The Polish Agency for Enterprise Development

Introduction

This Human Capital Study Report is based on the results of two waves of studies, conducted in autumn 2019 and autumn 2020. The 2019 studies were conducted on larger samples of enterprises and population, with some of them being panel studies, i.e., studies intended to measure the same entities in subsequent years. In 2020, we surveyed only persons and enterprises qualified for the panel. The panel study, i.e., repeating interviews with the same sample, allows us to observe the changes for large and medium-sized enterprises on the one hand, and working-age people on the other. In 2020, the Human Capital Study (hereinafter: the BKL Study) coincided with the difficult period of the pandemic, and the fact that we had data from 2019, from the period immediately preceding this dramatic development, provided us with a unique opportunity to track the changes that took occurred during this year. There are several aspects to note regarding the context in which we are to present the report.

Before the outbreak of the pandemic, the economic situation in Poland was good, although GDP growth rate was slightly decreasing. The situation on the labour market was very good from the point of view of employees, but not from that of employers: unemployment rate was low thanks to a long period of economic recovery and the increasing consequences of demographic gap following the retirement of the post-war baby boomers and the steadily decreasing number of young age cohorts entering the labour market, with a relatively low participation rate maintained.

The pandemic led to phenomena like temporary hiatus and shorter working hours, for workplace-related reasons, especially in industries particularly affected by the lockdown (catering, collective accommodation, and shopping centres), and to remote working (this type of arrangement affected more than 14% employees)[1]. Apart from the education sector, these were mainly administrative workers, office workers, and business process support staff that worked from home. After the pandemic subsides, this working style may be expected to continue, at least in some enterprises and on certain positions. This will entail changes

[1] GUS, *Wybrane aspekty rynku pracy w Polsce. Aktywność ekonomiczna ludności przed i w czasie pandemii COVID-19*, Warsaw 2021.

in work management and organisation and trigger new requirements for employee profiles and employee competence building. For instance, we can observe the changes in foreign enterprises' shared services centres, which have dynamically developed in our country over the last decade.

Before the pandemic, there were labour shortages, which were mitigated, to a certain extent, by economic migrants, mainly from Ukraine. Problems with the availability of competence were aggravated by the general lack of employees. Thanks to the generous public support for companies in the first year of the pandemic, combined with job protection, it was possible to keep the unemployment rate at a historically low level. Problems with the availability of employees are one of the key barriers to an even faster economic recovery, which took place after a short period of the pandemic slowdown. Such a situation favours investment in machinery and software. However, so far it has not spawned more private investment in Poland. The low investment rate results from institutional factors and investment companies' risk calculation. At play for a long time, during the pandemic, these factors were accompanied by problems with the supply of capital goods caused by the disruption of supply chains and excessive concentration of global production.

As a consequence of the decreasing supply of new labour resources, demand-related pressure on the labour market will be growing. Although Poland still has reserves of potential labour resources because a relatively large proportion of the working-age population are economically inactive, past experience has revealed a major problem with their mobilisation. Short-term, it is difficult to expect serious institutional changes in areas like e.g., social policy, which would increase the opportunities in this respect.

Changes inpublic employment services operations stalled. They were formed during the situation of the overwhelming dominance of the employer's market and the high unemployment rate. However nowadays, in a situation of the growing shortage of employees on the labour market and the deficit of competence, they should address completely different challenges. To some extent, gaps on the labour market are filled by immigration of employees, mainly from Ukraine, but this source cannot be treated as permanent. A prudent, long-term immigration policy, combined withmigrants' adaptation to the Polish labour market requires continued development and effective implementation.

The dynamic development of the Polish economy will need to face up to the technological breakthrough, and its competitiveness will depend on the availability of qualified workforce as well as employees' ability and readiness to build their competence. This requires an appropriate response from the education system, including higher education, and from the development sector, which plays an important role in the current adaptation of labour resources to the new needs. Our reports closely follow the situation and changes in the field of adult education and companies' willingness to invest in this area.

The pandemic was a peculiar event, a severe disruption that threw the economy off its normal course of development. Since the BKL Study has been partially carried out on a panel sample, allowing us to compare the situation of enterprises and individuals at subsequent points in time, we had an opportunity to trace the response to this extraordinary situation. In this report, we focus specifically on the change that occurred in the first year of the pandemic. In the future, when the pandemic finally subsides, we will be able to examine its ultimate consequences for the labour market.

We begin our report by presenting the situation of people functioning in the labour market, as analysed by Szymon Czarnik, Magdalena Jelonek, and Krzysztof Kasparek. The pandemic found the Polish labour market in prosperity, and itself, the health crisis did not cause a shock. Naturally, there are sectors more vulnerable to the consequences of the pandemic, such as catering, hotel industry, tourism-related services, and the beauty sector. In general, however, the situation turned out to be much less dangerous for the labour market than it had seemed. Decrease in employment occurred only in the group of the youngest people aged 18–35, and among people over 55. Women were more likely to give up their jobs, but this is not a new phenomenon and had also occurred before the pandemic. Subsequently, there was no serious deterioration in respondents' income, with largest decrease in this respect experienced by top earners. Men were more likely than women to declare they had an excessive workload. The shift to remote work affected a minority of workers; yet it was more visible in the category of professionals. The chapter discusses factors supporting virtualisation of work. While in general we have not observed a higher percentage of company liquidations than the year before, among individuals who run their own businesses, we have noticed more pessimism about the future and a marked increase in the declarations of a heavier workload. Also, the percentage of companies which recorded a turnover reduction increased dramatically, which is understandable given the period in which we conducted the study. This is indicative of increased uncertainty regarding business

operations, with persisting reservations about the conditions for running a business, such as high taxes, intense competition, and onerous regulations, obviously combined with the COVID-19 restrictions, which came to the fore. Undoubtedly, as a result of the high rate of economic growth and low unemployment at the onset of the pandemic, coupled with the employment-stabilising support instruments for enterprises, the situation on the labour market remained very favourable for employees despite the temporary economic downturn.

The second chapter, by Piotr Prokopowicz and Marcin Kocór, describes the impact of the pandemic on the condition of large and medium-sized enterprises and their response to the challenges regardingforms of work organisation and certain aspects of management, such as planning and human resources management. The authors also show how the pandemic resulted in changes to the organisational culture model, enhancing the elements of clan culture in companies. Finally, they offer an interesting analysis of companies' response in terms of innovation, focusing particularly on the profile of companies resilient to the crisis, which did not reduce their innovative activity, but even strengthened it.

In the third chapter, Katarzyna Lisek and Barbara Worek demonstrate how the situation in the first year of COVID-19 pandemic influenced companies' strategies in the field of employees' competence development. This is an essential aspect of human resources management, which, by its nature, was susceptible to the shocks of the pandemic. Despite the pandemic, large and medium-sized enterprises did not give up activities supporting employee development; however, they limited their scale and forms. As could be expected, e-learning courses met with particular interest, which was often due to companies shifting to remote or hybrid work. Companies which were most heavily involved in the development of employees were those which were developing themselves and, despite the pandemic, this group of companies continued to be strongly committed to increasing their employees' competence. The companies whose development accelerated in the year of the pandemic were more likely than others to invest in new forms of supporting competence development. The study confirmed the existence of a strong link between companies' innovation and expansion and their development-oriented HR policies. Furthermore, large and medium-sized companies implemented a systemic approach to the development of employees' competence by diagnosing the needs, establishing dedicated positions and departments, and earmarking dedicated budgets for such activities. The authors present industry diversification in this regard. In view of the general situation on the labour market, it is not surprising that companies try to respond to competence gaps by reaching for internal resources, training

employees, or reorganising, rather than looking for the missing competence externally. Particular emphasis in sealing competence gaps is put on professional skills related to the position. An important finding of this chapter is the observation that after almost a year of the pandemic many more companies than the year before declared they were investing in employee development.

In this general context, the last chapter, compiled by Barbara Worek, Katarzyna Lisek, and Jarosław Górniak, draws the picture of a society that – in spite of everything, continues to learn, even more than before. Naturally, the lead position is occupied by remote education, which is likely to stay with us in the future, though probably in various combinations with classroom education, whose qualities we also learnt to distinguish and appreciate. Interestingly, among the respondents, the importance of work-based learning did not decrease, but even increased. The chapter shows the popularity of various forms of this type of learning. A pessimistic aspect of the results that we have obtained is the consolidation of differences between individuals systematically active in education and those who remain inactive. Considering the large increase in the percentage of elderly people who used on-line educational materials, there is hope that informal education will develop based on materials from the Internet.

The 2020 BKL Study was one of the biennial editions planned from the very start that are dedicated to the study of change occurring at individual level – between points in time – and tracking of factors that affect entities' movement between categories. To achieve this goal, since 2016, both studies of individuals and studies of businesses have been conducted – on a part of the sample – as panel studies, i.e., ones in which the same questions are asked of the same entities at a planned time interval. Every two years, studies are conducted only on the panel portion of the sample, and this was the case in this edition.

In 2020, the population survey was carried out on a sample of 1,560 people of the 2,612 respondents who had been surveyed in 2017 and were 18–63 years old at that time. Of them, 1,144 participated in the 2019 study and it was them that constituted the 2020 panel sample that was used to analyse the development that took place in the year of the pandemic. The main study was carried out between 30 September 2020 and 11 January 2021 using mixed techniques, i.e., CAPI, CATI, and CAWI, which allowed us to increase the response rate.

The study of enterprises was conducted on a sample comprising medium-sized and large companies only. In this wave, the study covered 1,096 companies, of which 656 had also taken part in the 2018 and 2019 studies. The main study was conducted between 5 October and 10 December 2020, using mixed techniques, i.e., CAPI and CATI, with telephone interviews accounting for 78%. The basis of the panel is the set of enterprises sampled in 2017. For this sample, weights were also calculated, taking into account the number of micro- and small, medium-sized, and large enterprises and, thus, the probability of being included in the sample. The panel sample does not reflect the situation in the entire population of enterprises, but only that in the segment of large and medium-sized companies active in 2017.

The main objective of the studies conducted on the panel sample is to track the dynamics of changes at entity level (known as gross changes). A sample like that gradually loses its representative features with respect to the set from which it was selected. In order to obtain a representation of the current general set, it should be sampled independently from the current sampling frame of this set.

The method of sample selection is always deployed to achieve the objective of the study; therefore, in order to examine gross change, we relied on the panel sample. However, panel studies have specific limitations. By way of example, let us take the analysis of educational activity of adults. The 2020 panel sample of individuals has an overrepresentation of people with higher education, which requires caution when comparing educational activity indicators to those obtained in the full, representative sample of 2019 (net changes). The overrepresentation of potentially more educationally active individuals in the panel results in higher indicator values. Besides, results may be distorted by the panel learning phenomenon, i.e., the impact of participation in the studies on the behaviours, opinions, and views of the respondents, which also favour obtaining higher adult learning rates in the panel sample when compared to the cross-sectional sample. That is why, this time only the 2019–2020 panel sample was used for the analysis of educational activity. Its objective was to determine the impact of the COVID-19 pandemic on the involvement in adult competence development, i.e., analyse the changes that occurred in the educational behaviours of Poles at the individual level and identify the features and factors that differentiate them rather than estimating the total indicator values. Similarly, limitations are present in other sections of the report, in which we also focus on the analysis of change.

It is important to note that in the current edition of the BKL Study we use the 2014 ISCO Classification of Occupations for the analysis of professions. With the Classification, we apply slightly modified terms which we also systematically employed in reports from the previous years. To facilitate reading, we have compiled a table with the abbreviations and terms used, assigned to the official names of categories in the ISCO Classification.

Table 1: Occupational categories used in the BKL Study

#	Abbreviation	Term used in the report	Official name of the category in the ISCO-08 system
1	MNGR	Managers	Managers
2	PROF	Professionals	Professionals
3	ASSO	Associated professionals	Technicians and associate professionals
4	CLER	Clerical support workers	Clerical support workers
5	SERV	Service and sales workers	Services and sales workers
6	AGRI	Farmers	Skilled agricultural, forestry and fishery workers
7	SKIL	Skilled workers	Craft and related trades workers
8	OPER	Operators and assemblers	Plant and machine operators and assemblers
9	UNSK	Unskilled workers	Elementary occupations

We hope that the report will allow us to present employers and employees' significant response to the pandemic crisis as well as provoking a discussion on further development scenarios and expectations regarding the human capital development policy in Poland.

On behalf of the authors, I want to thank the team of the PARP Analysis and Strategy Department, headed by Paulina Zadura, for the excellent cooperation in the implementation of the project, and Iwona Krysińska, Wioletta Skrzypczyńska, and Anna Tarnawa of the same team for all their comments and suggestions which allowed us to refine the report.

Jarosław Górniak

Key takeaways from the 7th edition of surveys carried out under the Human Capital Study

Labour force participation

- The professional situation of the vast majority of respondents remained unchanged. Persons who worked in 2019 but stopped working in 2020 accounted for 5%. The opposite situation (i.e., persons who did not work in 2019 but started in 2020) occurred in 4% of cases.

- Largest decrease in employment (by 9.5 pp) was observed among persons whose functioning was most strongly limited by the pandemic-related sanitary restrictions, i.e., service and sales workers.

- By age groups, largest decrease in employment was recorded among the youngest (18–35 years old) and oldest (55 and older) groups of respondents. While in the case of the oldest group it can be explained mainly by their acquiring the right to retire and gradually leaving the labour market, the 18–35 group exposes the significant reduction in the possibility of taking up odd jobs in the tourism and catering sectors, which took place in 2020. Furthermore, apart from reasons strictly related to the pandemic, the most common reasons for falling out of the labour market among respondents from this age group is the leave related to the birth of a child, and starting full-time study.

- Women who worked in 2019 were significantly more likely to stop working in 2020 than men in the same situation. When analysing these differences, two important factors which to a large extent explain the differences should be noted: (1) women stop their careers more frequently so as to take care of children and other family members; and (2) women acquire the right to retire earlier.

2020 earnings compared to 2019 earnings

- When compared to 2019, income decrease was more likely to be recorded by persons in the best financial situation, with relatively highest earnings (individuals in managerial positions, persons running their own businesses, and those earning more than PLN 5,000 net per month). It should be noted that despite the decrease, in 2020, their financial situation was still much better than that of persons from the other, lower-earning categories.

- As could have been expected, the most stable financial situation was that of persons with the most stable form of employment i.e., a contract of employment. An increase in income was observed by 65% of respondents, and a decrease by 21%.

- On average, the income of respondents who recorded a decrease in 2020 dropped by PLN 500. Similarly, the income of persons who recorded an increase rose by PLN 500.

- Among those who revealed the monthly net income of their households, a noticeable improvement (at least a 10% increase in income) was observed in the case of 43% of respondents. Deterioration in the financial situation (i.e., at least a 10% decrease in income) was observed in every fourth respondent (27%).

Working conditions vs the COVID-19 pandemic

- The general population’s declarations regarding their sense of workload in 2019 and 2020 were very similar. However, changes between the two years are visible when we consider the division into different survey groups; in 2020, equal numbers (approximately 1/3) of respondents felt they workload increased and decreased.

- In 2020, workload increase was more likely to be reported by men than by women, particularly by male professionals (more than double the percentage of men than women felt their workload was higher in 2020 than in 2019) and men with children (among families with children, regardless of the children’s age, the percentage of those reporting an increase in workload was higher among men).

- Similar results (no change between 2019 and 2020) can be observed regarding the possibility of reconciling work and family life, with deterioration of work-life balance between 2019 and 2020 particularly felt by persons aged 30–39 and men with young children (under eight).

- Before the outbreak of the COVID-19 pandemic, about 8% of employees declared they worked remotely, mainly (more than 80%) in the hybrid mode, while traditional work prevailed. The outbreak of the COVID-19 pandemic increased the scope of remote work for about 30% of employees.

- The scope of remote work increased particularly in the group of employees with previous experience with this working style. It should be added that, usually, the more specialised the profession, the higher the likelihood of remote work. For the majority (71%) of employees, the pandemic did not bring about any change in their working style.

- Based on the 2019 – 2020 work virtualisation evolution data, two groups of professions can be distinguished, one with low and average virtualisation capacity, and the other with high virtualisation capacity. The first group includes service and sales workers as well as clerical support workers, while the other group includes managers, professionals, technicians, and associate professionals. The process of work virtualisation definitely affected specialist professions most.

Entrepreneurial activity under the COVID-19 restrictions

- The percentage of companies closed down in 2019 and 2020 did not increase compared to the previous years (closures mainly affected the newest companies, established in the last decade). Approximately every seventh entrepreneur closing their business activity identified coronavirus restrictions as the reason.

- Compared to the previous periods, the percentage of entrepreneurs who declared that they devoted more time to their business activity than the year before significantly increased.

- The trend was particularly strong in the group of sectors related to specialist services, such as law, business consulting and management, accounting, taxes, and IT, i.e., the types of services for which demand may have grown as enterprises struggled with the COVID-19 restrictions introduced across the country.

- Like in the previous years, major obstacles to business activity included high taxes, onerous regulations, and strong competition (each of the challenges affected approximately every third entrepreneur). However, the COVID-19 restrictions which, in one form or another, affected more than a half of companies, and for every fifth company were the biggest problem encountered, came to the fore.

- Recently, turnover dynamics has drastically deteriorated. The percentage of companies declaring their turnover remained at the same level dropped from over 50% to 30%, while the percentage of companies whose turnover went down significantly increased, from several percent to nearly 50%. Such decrease was reported by as many as 70% of companies from the sectors of trade, accommodation, catering, and services. Turnover decrease resulted mainly from the pandemic.

- In the next 12 months, more than 40% of companies expected a decrease in turnover, while increase was expected by only 12%. This pessimism is practically an inversion of last year's trend, where 17% of companies feared a decrease and over 30% expected and increase.

Companies resilient to crisis? Organisational culture and management methods of Polish companies

- 65% of medium-sized and large companies experienced negative effects of the pandemic, with experiences in this area depending on the sectors in which entrepreneurs operated.

- The effects of the pandemic were most likely to be felt by the retail, hotel, and catering sectors, which were most affected by the restrictions (as indicated by 80% of companies). Industry & mining and education were also severely affected by the pandemic (76% and 73% of companies respectively).

- During the pandemic, the possibility of remote work was accepted by 59% of medium-sized and large companies. Companies from the education sector were most likely to switch to this work mode (90% of responses), while construction & transport companies were least likely to do so (36% of responses). However, only 25% of companies declared they would keep remote work as a working arrangement after the pandemic. Education sector companies pointed to this possibility slightly more often than the others, although it was still every third medium-sized or large entrepreneur.

- 47% of the companies that had action plans before the pandemic confirmed that they had such plans. One fifth of medium-sized and large companies developed action plans during the pandemic (22%), while every sixth company gave up planning during that period (14%). The percentage of entities that gave up action plans was higher in the case of companies from the sectors most affected by the pandemic i.e., trade, accommodation, catering (18%), industry & mining (18%), and health care & welfare (17%).

- As regards analysing the effectiveness of human resources management, the behaviours of medium-sized and large companies did not change fundamentally during the pandemic and more than two thirds continued assessing it (68%). During the period, more companies started such analyses than gave them up (16% vs 11%).

- Despite the unchanged structure of the forms of organisational cultures (clan culture still predominant, with 21% of companies relying on it and 17% switching to it), we can observe a significant growth in the transformation of organisational cultures in the face of the pandemic. Over the year, half of the companies changed the dominant pattern of their activities. Particularly worth noting are the diverse adaptation strategies of the specific sectors: while in the case of construction & transport, health care, education, and specialist services clan culture became the target culture for most companies, for trade, accommodation, and catering, it was the market culture, and for industry & mining – the adhocracy culture.

- As regards innovative activities, the analysis identified four categories of companies: resilient i.e., introducing innovation both before and during the pandemic; antifragile i.e., companies that were strengthened by the crisis and, although they had not implemented innovation before, they did so during the pandemic; fragile i.e., ones that

had implemented innovation before but stopped during the pandemic; and stagnant i.e., companies which did not introduce innovation either before or during the pandemic.

- 21% of the entities surveyed can be classified as antifragile: they did not introduce innovation in 2018, but did so in 2020. Companies with a long-term plan of activities and employees development and those in which the executives focused on efficient organisation and control of procedures' implementation (hierarchical culture) had a better chance of being included in this category.

New strategies for new times? Investments of medium-sized and large enterprises in employees' competence during the COVID-19 pandemic

- Medium-sized and large enterprises continued to invest in the development of their employees' competence, despite the organisational and financial difficulties caused by the COVID-19 pandemic. At least one development activity was undertaken by 91% of companies from this group, a result similar to the one achieved in the previous year. However, employers reduced the scale of their activities: 80% of enterprises withdrew from at least one type of development activities undertaken in the previous year, the average number of employees taking part in training decreased and the average budget allocated for this purpose was reduced.

- In 2020, just like in the previous year, the most popular methods of improving employees' competence were job instruction, job shadowing, coaching, and mentoring. These methods are oriented towards individual development of the employee and preparing them to perform tasks in a specific occupational position.

- The only method of supporting employees' competence that grew in popularity last year was e-learning. This is certainly related to the pandemic and the increased scale of remote work. Biggest decrease in popularity affected the development methods that require a physical meeting in a large group, or travel.

- Despite the COVID-19 pandemic, medium-sized and large enterprises continued their activities aiming to include the development of employees' competence in the strategy of the enterprise. The number of employers with a dedicated budget for development activities increased (from 35% to 42%), and the number of companies with a department or position involved in these issues remained at a similar level (30%). Compared to the previous year, a higher percentage of enterprises carried out systematic assessment of their competence needs.

- Medium-sized and large enterprises, which in the year preceding the pandemic had been in the strong development phase, were more likely than others to continue activities supporting the development of their employees' competence in 2020. They remained leaders in supporting all forms of competence development under analysis, both on-site and outside the workplace. More frequently than others, they had development departments and budgets allocated for this purpose; most of them carried out systematic assessment of competence needs. It can be concluded that in the context of investing in the development of competence, the position built in the previous years provided them with stability in the times of crisis.

- Compared to the previous year, enterprises whose development level increased in 2020 were more likely than the others to start investing in new forms of supporting employees' competence. Also more often than the others, by allocating budgets, they invested in the establishment of development departments. This may mean that a faster development rate entailed greater competence needs for enterprises, which in turn mobilised employers to look for funds to address them.

- A vast majority (70%) of medium-sized and large entrepreneurs plan to invest in the development of their employees' competence in the next year: a result higher than in 2019. More than a half of employers with such plans were going to implement them with the support of EU funds.

Development of competence of adult Poles under the COVID-19 pandemic

- Despite the 2020 restrictions and difficulties related to the COVID-19 pandemic, Poles were actively developing their competence, using various methods. The COVID-19 restrictions did not reduce the overall level of educational activity of adult Poles. In the last twelve months preceding the BKL Study, 48% of respondents were learning either formally or non-formally, which is even slightly more than in 2019, when 46% of adults aged 25–64 recorded educational activity. More than a half of working persons (51%) were developing their competence in the workplace, and 68% of adults were learning in an informal way.

- The COVID-19 pandemic can be a strong stimulus for lasting, radical changes in the access to educational services and the methods of their provision. A fundamental change brought about by 2020 is the major increase in the percentage of persons who developed their competence remotely. In 2020, almost twice as many Poles as in 2019 participated in work-related remote training (21% in 2020 vs 11% in 2019). Therefore, the COVID-19 pandemic definitely accelerated digitisation of educational services, forcing a change in behaviours of both service providers and service users. The coming years will show to what extent the solutions will be used and become a permanent element of the educational market.

- Work-based learning remained a widely used method of competence development, particularly frequent in the sectors of education, health care & welfare, and industry & mining. The restrictions related to the COVID-19 pandemic did not reduce the number of work-based learners. In 2020, even slightly more persons than in 2019 used competence development methods like job instruction, coaching and mentoring, job shadowing, and job rotation. The most common method of work-based learning was job instruction: in 2020, it was used by 30% of employees, 4 pp more than in 2019. Besides, employees frequently used coaching or mentoring (25% in 2020 and 19% in 2019). There was an increase in the popularity of learning by observing other employees (15% in 2020 and 13% in 2019) and job rotation, i.e., temporary performance of tasks in another position (11% in 2020 and 8% in 2019).

- The COVID-19 pandemic can consolidate and strengthen the differences between those permanently active and those permanently inactive in terms of education. This division is clear among adult Poles. Permanent educational activity is supported by labour force participation, higher level of education, and work that stimulates development and is accompanied by a sense of opportunity for using the competence acquired through education. Educational inactivity usually goes hand in hand with non-participation in the labour force and with performing routine work that does not provide employees with any chance of skills development. Admittedly, the transfer of educational activity to the Internet, which accompanied the pandemic, opened up opportunities for persons for whom e.g., distance was a barrier hindering access to training centres; however, it did not significantly change the situation of those who did not learn because their work environment did not stimulate them to do so. The high level of utilisation of training and other remote forms of development among those privileged on the educational market and the low level of their use among those in a more difficult situation suggests the competence gap between the groups may grow. A certain opportunity could be seen in the wide range of informal learning options, including learning from materials available on the Internet. In this respect, the particularly large increase in the percentage of elderly people who declare they learn using online resources is optimistic.

Polish labour market during the COVID-19 pandemic

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Although the topic of a global epidemic had regularly featured in the public debate, the COVID-19 pandemic seems to have had all the features of a black swan, i.e., an unforeseen event with far-reaching consequences. Following the outbreak and spread of SARS-CoV-2, governments of countries all over the world introduced various types of preventive measures and restrictions affecting all spheres of life. One of such spheres is work, addressed in this chapter. The pandemic-related restrictions' effect on the labour market can be analysed from different perspectives, including the macro-perspective and the micro-perspective. The former describes the general processes and changes observed, in the averaged form, using aggregated indicators, such as unemployment rate. However, the indicators only partially show the dramatic changes which occurred in the labour market. The pandemic affected not the general condition of the market, but the particular groups, reducing the chances of some while improving the chances of others (the latter perspective). This chapter will discuss both the former (averaged) and the latter (individual) perspectives on the market situation in Poland.

This chapter addresses three issues:

- labour force participation of Polish women and men (described in general, and in relation to income);
- work in the pandemic (including remote work and the topic of workload);
- self-employed persons, a specific group that deserves a separate analysis.

The above aspects will be discussed in separate sections of the chapter.

First, the specificity of the data used to form conclusions in this part of the report should be noted. These are panel data, i.e., data collected from the same respondents (Polish women

and men aged 18–69 living in Poland)[2] in subsequent years. The data enabled two analyses: analysis of the description of the population in a given year, and analysis of the change between the subsequent years for the individual respondent. Naturally, particular attention was paid to the changes that occurred between 2019 and 2020.

Labour force participation and wages during the pandemic

The dynamically changing pandemic-related restrictions were one of the major factors that modelled labour force participation in 2020. In many sectors, employees and employers were confronted with the need to quickly adapt to rapid transformations, related to restrictions, and sometimes a compulsory lockdown of entire sectors of economy. The consequences were felt by both employers and employees. This part of the chapter aims to describe how the COVID-19 restrictions affected the main indicators related to the level of employment and wages.

Employment

Most of the below analyses describe the panel sample referred to in the introduction. When reading these results, it should be noted that they apply to respondents who took part in the Human Capital Study (hereinafter: the BKL Study) in both 2019 and 2020. The trends and effects described in this chapter concern these persons[3].

One of the greatest economic risks brought about by the pandemic was loss of jobs. Analysis of the general level of labour force participation, based on the BAEL division (working, unemployed, and economically inactive persons), contrary to the expectations, demonstrates a stable level of employment and even its slight increase for women (from 68% in 2019 to 70% in 2020), with corresponding decrease in the category of economically inactive women (Table 1).

[2] More on the BKL methodology: Antosz. P., *Metodologia badania Bilans Kapitału Ludzkiego 2016–2023*, PARP 2018.

[3] Due to factors like small size of the categories of respondents, a possible generalisation of the results to the whole population of Poles may be consider a risk factor of error.

Table 1: Labour force participation based on the BAEL Classification System by gender in 2019–2020 (%; N)

	2019			2020		
	men	women	total	men	women	total
working	82.6	67.7	74.9	83.4	70.0	76.6
unemployed	3.8	3.3	3.6	3.0	2.6	2.8
inactive	13.6	28.9	21.5	13.6	27.4	20.6
N	730	784	1,514	766	794	1,560

Source: BKL Study 2019, 2020 – Population survey.

For a vast majority of persons in the panel (90%), labour force participation remained unchanged over the 2019–2020 period. Persons who stopped working in 2020 accounted for 5% of respondents, and most of them were economically inactive. Persons who became unemployed accounted for less than 1% of respondents. Almost 4% of the sample were respondents who became economically active. Table 2 summarises the data.

Table 2: Labour force participation according to BAEL: changes over the 2019–2020 period (%; N)

	work in 2020	unemployment in 2020	no labour force participation in 2020	N
work in 2019	71.3	0.8	4.2	870
unemployment in 2019	1.0	1.3	0.5	32
no labour force participation in 2019	2.8	0.5	17.7	239
N	857	29	256	1,142

Source: BKL Study 2019, 2020 – Population survey.

Biggest decrease in employment among sales and service workers

Changes in employment (expressed as the difference in the percentage of working persons in 2020 and 2019) are worth analysing in the context of the following characteristics: age, education, type of employment, and type of work[4] (Table 3).

Largest decline in employment (down by 9.5%) was observed among service and sales workers. This seems to be a consequence of sanitary restrictions, which significantly affected the catering industry, hotel industry, tourism, and the beauty sector.

Analysis by type of employment showed largest decrease in the percentage of employees among persons with the least stable situation (civil law contracts), but due to their very small numbers, the results should be approached with caution. Highest percentage of persons who kept their jobs was observed among the self-employed (decrease by 1.8% only).

As was expected, persons with higher education turned out to be most resilient to loss of employment. Among persons with secondary or lower education, loss of employment was at a similar level (change by 7–8%).

A comparison of the employed by age groups showed an approximately 8% decrease in employment in the youngest group (18–35), and an approximately 11% decrease in the oldest group (55 and older). When analysing these data, it should be noted that an essential factor affecting labour force participation among the youngest group is continuation of education (studies), which often makes work casual. Since in 2020 universities worked remotely, many individuals could choose to stay at home, which, coupled with the limited activity of certain sectors, clearly made it difficult to take up work. Another significant reason for a longer break in employment among this group is the birth of a child.

For the oldest group, the main reason for leaving the labour market is the acquisition of the right to retire.

[4] For the listing purposes, three types of work are distinguished, white collar of managers, professionals, technicians and associate professionals and clerks), blue collar (skilled and unskilled workers and operators) and trade/services (sales and service workers).

Women withdraw from labour force participation much more frequently than men

When examining all the characteristics, like in the previous years, women who worked in 2019, were significantly more likely to discontinue work in 2020 than men in the same situation. However, it should be noted that the difference was distinctly smaller than in the previous years (2017/18, -4.8% men vs -10.6% women; 2018/19, -5.7% men vs -10.1% women; and 2019/20, -5.2% men vs -7.8% women). One of the possible explanations can be the global shift towards remote work during the pandemic, thanks to which more women chose to remain economically active compared to the period when these solutions were not available on such a scale.

Another characteristic effect involves the type of work and the type of employment. In terms of decrease in labour force participation, biggest differences between the genders were visible for white-collar workers (-3.3% men vs -6.8% women), persons with higher education (-2.7% men vs -6.0% women), and persons employed under a contract of employment (-3.3% men vs -7.7% women). This can be explained by the availability of longer, paid childcare leave, entailed by the most stable form of employment, i.e., contract of employment. Such contracts are concluded visibly more frequently by persons with higher education and white-collar workers. In comparison, one should note the situation among persons running their own businesses and blue-collar workers. In their case, the differences were much smaller, and greater decrease in the percentage of economically active persons was observed among men (own business, -2.4% men vs 0.8 % women; and blue-collar workers, -3.6% men vs 3.2% women).

When examining these differences, one should focus on two particularly important issues that, to a large extent, explain them:

1. Women discontinue their careers more frequently than men so as to take care of children and other family members[5];
2. Women acquire the right to retire earlier than men (60 vs 65 years)[6].

[5] PARP, (2020). Report Analiza luki zatrudnienia oraz wynagrodzeń kobiet i mężczyzn [accessed 14 October 2021, 15:20]

[6] Journal of Laws 2021, item 291, Article 24

Table 3: 2019–2020 decrease in the percentage of working persons by type of work, type of employment, education, and gender

	type of work	difference between 2020 and 2019 (%)	N	type of employment	difference between 2020 and 2019 (%)	N	level of education	difference between 2020 and 2019 (%)	N	age	difference between 2020 and 2019 (%)	N
M	white collar	–3.3	154	contract of employment	–3.3	284	primary	–6.0	128	18–35	–6.7	129
	trade/ services	–8.6	31	own business activity	–2.4	77	secondary	–6.8	152	36–54	–3.1	196
	blue collar	–3.6	180	contracts	–17.9	21	higher	–2.7	114	55+	–9.3	69
W	white collar	–6.8	269	contract of employment	–7.7	53	primary	–8.7	80	18–35	–9.6	154
	trade/ services	–10.1	62	own business activity	–0.8	362	secondary	–9.6	159	36–54	–4.3	207
	blue collar	–3.2	80	contracts	–	13	higher	–6.0	203	55+	–13.3	81
T	white collar	–5.3	412	contract of employment	–5.5	648	primary	–6.9	215	18–35	–8.1	283
	trade/ services	–9.5	90	own business activity	–1.8	135	secondary	–8.1	312	36–54	–3.6	404
	blue collar	–3.5	273	contracts	–13.0	36	higher	–4.6	309	55+	–11.2	150

Source: BKL Study 2019, 2020 – Population survey.

Changes in wages

Due to restrictions on public gatherings, the conditions in the workplace and the possibilities of enjoying entertainment, culture, and recreation had to change rapidly. The restrictions were accompanied by numerous concerns and negative forecasts regarding the future of the persons affected. One of the many undesirable side-effects consisted in reduction of entrepreneurs' income, reflected in decreased wages. The objective of this subchapter is to analyse the above wage changes in 2019 and 2020.

Those affected by the greatest decrease in wages were often managers, persons running their own businesses, and, generally, highest earners.

Among those included in the panel survey, who worked in both 2019 and 2020, every fourth respondent (24%) declared their net income decreased. 63% declared their income increased (Figure 1).

The type of employment most susceptible to income decrease turned out to be own (other than agricultural) business activity, where income decrease was recorded by more than 40% of respondents. This category was followed by persons for who the major source of income was work under civil law contracts, among whom income decrease was observed in 30% of respondents. The best financial situation (smallest percentage of income decrease combined with highest percentage of income increase) was observed among persons with the most stable type of employment, i.e., those working under a contract of employment. Income reduction was reported by every fifth respondent, and income increase by 65% (Table 4).

When interpreting the results, it should be noted that earnings of persons running their own businesses and persons working under civil law contracts respond to economic changes much more dynamically than earnings of full-time workers.

Table 4: Change in monthly net income in 2020 compared to 2019 by type of employment (%; N)

type of employment in 2019	decrease	no change	increase	N
own business activity	42.1	8.8	49.2	64
contract of employment	20.9	14.1	64.9	480
civil law contract	30.4	12.4	57.2	27
Total	23.9	13.3	62.8	609

*The analysis only applies to persons from the panel study who worked in both 2019 and 2020.

**Decrease means that the average net income in 2020 was lower than in 2019; increase means that income in 2020 was higher than in 2019; no change – net income remained unchanged.

Source: BKL Study 2019, 2020 – Population survey.

The occupational category whose representatives were most likely to record a decrease in monthly net income were persons employed in managerial positions: in this group, 40% of respondents reported a reduction in wages. The runners-up were farmers: 36% claimed their income decreased compared to 2019. The occupational categories in which income decline was observed least frequently were professionals (18%), and persons with the weakest

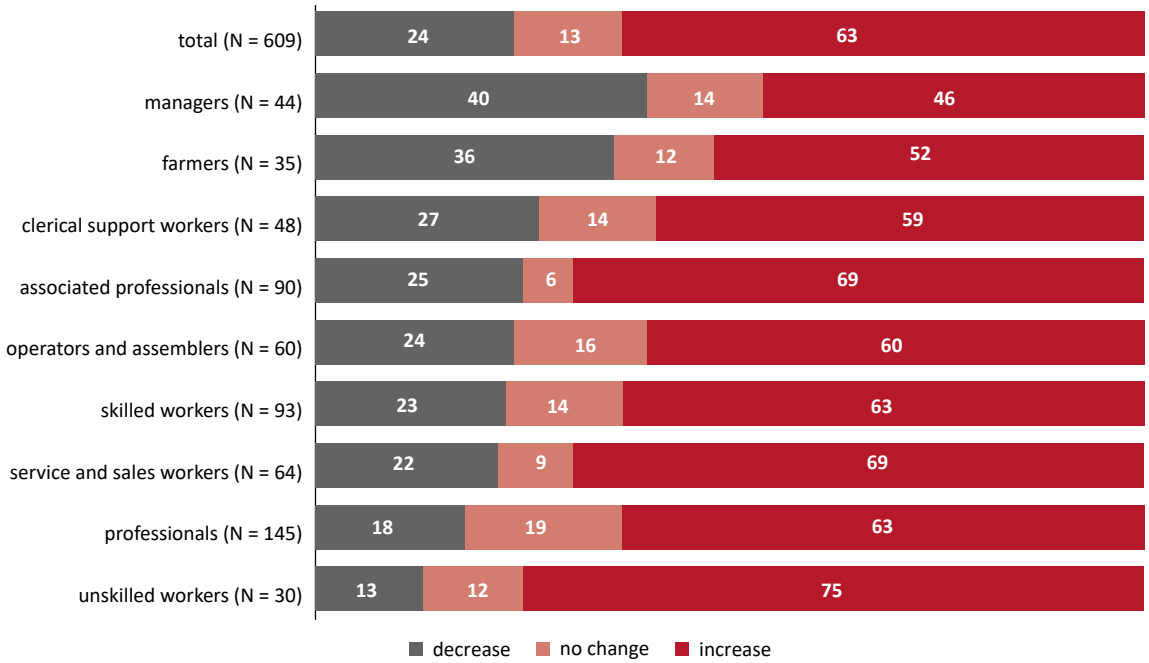
market position, such as unskilled workers (13%). Regarding the latter category, caution is recommended when interpreting the results as the sample was small. Among other occupational categories, income decrease was recorded by 22–27% of respondents (Figure 1).

In comparison to 2019, highest increase in income (68% or more of respondents) was observed in the categories of service and sales workers, among technical and associate professionals, and among unskilled workers, although it should be noted that in the latter case the sample was small.

The occupational categories in which income increase was observed for 59–64% of the employed were professionals, skilled workers, operators and assemblers, and clerical support workers.

Visibly below the average for the total of employed individuals (63% of those declaring increase) were persons working in agriculture (53%) and in managerial positions (46%).

Figure 1: Change in monthly net income in 2020 compared to 2019 by professions (%; N)



*The analysis only applies to persons from the panel study who worked in both 2019 and 2020.
** Decrease means that the average net income in 2020 was lower than in 2019; increase means that income in 2020 was higher than in 2019; no change - net income remained unchanged.
Source: BKL Study 2019, 2020 – Population survey.

In 2020, income increase opportunities were inversely proportional to 2019 income. Persons with highest monthly net income were less likely to declare that their income increased in 2020 than that it decreased (39% vs 43%). At the same time, almost all those earning less than PLN 2,000 net recorded a higher income (91%). For the category of lowest earners, this can be explained by factors like the minimum wage increase. Among those whose wages **ranged between PLN 2,000 and PLN 3,000 net income increase** was reported by 70%. Among those with net wages between PLN 3,000 and 4,000 and between PLN 4,000 and 5,000, a similar percentage of persons who reported income increase (59% and 53% respectively) was observed (Table 5).

This trend corresponds with the phenomena described above which show that persons most susceptible to income decline were those in managerial positions and those running their own businesses. On average, both groups are characterised by higher income.

Table 5: Change in monthly net income in 2020 compared to 2019 by net income in 2019 (%; N)

net income in 2019	decrease	no change	increase	N
< PLN 2,000 zł	5.8	3.5	90.7	89
PLN 2,000 – 2,999	21.5	8.2	70.4	174
PLN 3,000 – 3,999	22.4	18.4	59.2	168
PLN 4,000 – 4,999	28.8	18.3	52.9	75
PLN 5,000 and more	42.9	18.5	38.6	102

*The analysis only applies to persons from the panel study who worked in both 2019 and 2020.
** Decrease means that the average net income in 2020 was lower than in 2019; increase means that income in 2020 was higher than in 2019; no change - net income remained unchanged.
Source: BKL Study 2019, 2020 – Population survey.

Highest earners most likely to lose but they still remain highest earners

The data discussed above (illustrated in Table 4 and Table 5) may suggest that 2020 changes in earnings were more severe for those on higher social positions. To prevent such risky conclusions, the table below provides a fuller picture of the scale of losses and gains of the particular players in the labour market (Table 6).

The average earnings (the median) of persons participating in the panel stood at PLN 3,000 in 2019 to rise by PLN 300 in 2020. In the case of persons who recorded a loss, the average amount by which their net wages dropped was PLN 500. Similarly, average wages of persons who recorded income increase rose by PLN 500.

Despite the relatively high percentage of persons in managerial positions who recorded income decrease, it should be noted that they are still in a much better financial situation than those from all the other job categories. For instance, farmers are in a distinctly worse situation. Although they were more likely to experience income increase than managers, their 2020 median wages were lower by PLN 250 when compared to 2019. This confirms that changes in average earnings among persons from this category were uneven with regard to the particular levels of income (e.g., situation improved for lowest earners only).

In the case of positions with the highest percentage of persons declaring their wages increased, the situation is relatively worst for unskilled workers whose median remuneration (PLN 2,250) is lower than that of service and sales workers (PLN 2,400) as well as technicians and associate professionals (PLN 3,500).

A relative decrease in income (compared to the other forms of employment) was observed among persons running their own non-agricultural businesses. Their median income did not grow between 2019 and 2020, unlike the median income of those with other forms of employment. Despite this, their average earnings still remain significantly higher than the earnings of those employed under a contract of employment and those working under civil law contracts.

A similar trend emerges when the analysis includes the income earned in 2019. Although income decrease was much more frequently visible among highest earners, they are still in a distinctly better financial situation than persons who earned much less than them in 2019. It should be noted that the average income of persons with net earnings below PLN 5,000 in 2020 was lower than in 2019: this applied to 43% of respondents. Persons whose wages decreased observed their value dropped, on average, by approximately PLN 1,500.

Table 6: Median monthly net income in 2019 and 2020 and its average change in 2020 by profession, type of employment, and range of monthly net income in 2019 (PLN; N)

	median income in 2019 (PLN)	median income in 2020 (PLN)	average decrease in 2020 (median. PLN)	average increase in 2020 (median. PLN)	N
Total	3.000	3.300	-500	500	609
profession					
managers	4.900	5.000	-500	750	44
professionals	3.600	4.000	-750	500	145
associated professionals	3.000	3.500	-500	500	90
clerical support workers	2.500	2.600	-400	500	48
service and sales workers	2.100	2.400	-600	500	64
farmers	2.500	2.250	-500	1.000	35
skilled workers	3.000	3.250	-300	500	93
operators and assemblers	3.000	3.200	-700	500	60
unskilled workers	1.750	2.250	–306[nw]	500	29
type of employment					
own business activity (non-agricultural)	4.500	4.500	-1.500	1.250	64
contract of employment	3.000	3.300	-400	500	480
civil law contract	2.750	3.300	–800[nw]	400	27
monthly net income in 2019					
< PLN 2,000	1.640	2.000	-250	500	89
PLN 2,000 – 2,999	2.500	2.600	-250	400	174
PLN 3,000 – 3,999	3.250	3.500	-500	500	168
PLN 4,000 – 4,999	4.200	4.500	-500	500	75
PLN 5,000 and more	6.500	6.000	-1.500	1.000	102

*The analysis only applies to persons from the panel study who worked in both 2019 and 2020.

**Average decrease is the value of the median of all persons in a given category whose earnings in 2020 decreased when compared to 2019; average increase, analogous to the decrease among persons who declared the increase in earnings in 2020 when compared to 2019;

[nw] Considering the very small size of the sample, it was decided that a non-weighted value should be provided.

Source: BKL Study – population survey, 2019–2020.

Changes in household income

In order to obtain a broader view of how the financial situation of Poles changed in the year of the pandemic, one should analyse the income of entire households.

A vast majority of respondents live in households composed of at least two persons. Single-person households accounted for 8% of respondents in 2019 and 10% in 2020. The income of most households is considerably higher than the individual income of particular respondents. As many as 80% of respondents pointed out that their household income came from at least two persons. In order to better illustrate the above situation, the indicator of noticeable change in the financial condition was developed. As noticeable change we considered a situation where household income changed by at least 10% in 2020 as compared to 2019 (Table 7).

Among persons who agreed to reveal the monthly net income of their households, a noticeable improvement (at least 10% income increase) was recorded in the case of 43% of respondents, while worsened financial situation (at least 10% income decrease) was observed in every fourth respondent (27%).

There were slight differences between the genders, in favour of men, among whom 45% recorded noticeably higher earnings, as compared to 41% of women.

An important result is the disparity between the noticeably better financial situation of respondents raising children and the financial situation of respondents in single-person households. While among the latter improvement was reported by 33%, the corresponding percentage for families raising one or two children was 41%, and for those raising at least three children – 44%. In families where children were born during the analysed period, the related social benefits (e.g., the 500+ benefit) may be responsible for a portion of income improvement. This effect can also be attributed to the specificity of the sample analysed, i.e., the average younger age of parents with children as compared to the age of individuals living in single-person households. The average age (median) of respondents from households with one or two dependent children was 40, and for the households with three or more children it was 42.

At the same time, in the case of single-person households, it was 58. Income increase, more frequently observed among 40-year-olds, can be explained by a more dynamic career development than among those approaching the age of 60.

Slight disparities in the noticeable income change were observed between respondents with particular levels of education. Among persons with higher education, ‘no noticeable change in household income’ was significantly more likely than among persons with primary or secondary education. Most probably, this results from the disparity observed in average earnings. Persons with higher education usually earn more than those with primary or secondary education. This means that similar income increase of more than 10% for primary and secondary education will not be observed for persons with higher education (hence, the advantage in the “no noticeable changes” category).

The inclusion of age categories in the analysis allowed us to identify the two that were most likely to experience monthly income changes, i.e., the youngest (18–29) and oldest (at least 50) participants of the labour market. In the case of the youngest group, the effect can be explained by their starting a professional career, which entails low wages with the possibility of a relatively big rise.

Table 7: 2020 change in monthly net income of households compared to 2019 by gender, family situation, education, and age (%; N)

	noticeable deterioration	no noticeable change	noticeable improvement	N
Total	27.0	30.0	43.0	879
gender				
men	26.0	29.4	44.6	415
women	28.0	31.0	41.0	464
family situation				
single-person households (single men and women)	25.0	42.0	33.0	72
families with 1 or 2 dependent children	24.8	34.0	41.2	392
large families (3 or more dependent children)	22.3	33.3	44.5	62
old-age pension				
old-age pensioners	27.9	39.0	33.1	93
level of education				
primary	29.6	26.1	44.3	248
secondary	26.9	27.6	45.5	338
higher	26.1	36.0	37.9	293
age				
18–29	35.8	17.4	46.8	149
30–39	19.7	37.0	43.3	251
40–49	29.0	32.3	38.7	179
50+	28.7	29.0	42.3	300

*A noticeable deterioration is the decrease in the 2020 household budget by at least 10% of its 2019 value. No noticeable change means that the 2020 household budget remains at the 2019 level +/- 9% of its value. A noticeable improvement is the increase in the 2020 household budget by at least 10% of its 2019 value.

Source: BKL Study – population survey, 2019–2020.

A noticeable deterioration in household income was observed for every fourth person who worked in 2019, while earnings increased for 43% of such persons (Table 8).

The highest percentage of persons who recorded a noticeable improvement in household income was observed among unskilled workers (53%), persons in managerial positions (49%),

and service and sales workers (46%). In the case of unskilled workers and service and sales workers, this can be explained by the relatively low level of their wages. However, managers are among the best-paid of all the categories known as the large ISCO categories.

Of all the categories, these were managers that were most likely to record earnings reductions, so the result seems particularly interesting. The most probable reason is that persons employed in managerial positions form relatively better-off households, whose members achieve better financial results, regardless of a potential stagnation or reduction in managers' wages.

Of all the categories of employment, these were persons running non-agricultural businesses that were most likely to experience a household income decrease. It should be noted that a decrease in monthly net income is also significantly more often observed in this group. When compared to managers, they do not seem to have equally effective mechanisms to secure the income of their households.

Like in the analysis of individual monthly net income, persons who belonged to the highest-earning group in 2019 were more likely (almost 40%) to claim in 2020 that their household income significantly deteriorated than those who earned less. In the case of other income categories, the change was between 23% and 29%. The category in which the lowest percentage of changes in household income was recorded were persons earning between PLN 3,000 and 4,000 net (42% did not record any change).

When analysing the results presented above, it should be noted that the way in which changes in income were felt in the particular categories did not change the financial hierarchy between the groups that we analysed.

Table 8: 2020 change in net monthly household income of working persons compared to 2019, by labour force participation, profession, type of employment, and income in 2019 (%; N)

	noticeable deterioration	no noticeable change	noticeable improvement	N
labour force participation				
working persons	26.9	30.2	42.9	676
unemployed and economically inactive persons	29.2	29.1	41.7	202
profession				
managers	9.5	41.5	49.0	41
professionals	23.5	35.4	41.1	141
associated professionals	30.1	28.7	41.2	96
clerical support workers	25.7	32.0	42.3	44
service and sales workers	31.9	22.1	46.0	64
farmers	41.7	17.5	40.8	39
skilled workers	26.1	30.0	44.0	95
operators and assemblers	31.4	40.6	28.0	60
unskilled workers	23.7	23.2	53.1	30
type of employment				
own business activity (non-agricultural)	43.8	27.9	28.3	62
contract of employment	22.3	33.3	44.4	450
civil law contracts	39.1	33.6	27.3	19
monthly net income in 2019				
< PLN 2,000	23.5	14.9	61.6	93
PLN 2,000 – 2,999	28.6	25.8	45.6	175
PLN 3,000 – 3,999	23.6	42.0	34.4	170
PLN 4,000 – 4,999	23.8	31.2	45.1	109
PLN 5,000 and more	39.6	32.2	28.2	61

*A noticeable deterioration is the decrease in the 2020 household budget by at least 10% of its 2019 value. No noticeable change means that the 2020 household budget remains at the 2019 level +/- 9% of its value. A noticeable improvement is the increase in the 2020 household budget by at least 10% of its 2019 value.

Source: BKL Study – population survey, 2019–2020.

Working conditions and the COVID-19 pandemic

Many considered 2020 as the year that modified the previously dominant image of the labour market. Introduction of restrictions following the outbreak of the COVID-19 pandemic resulted in a change of some employees' working conditions, which affected, among other things, the working mode (remote work), but also increased the number of additional responsibilities. Employees often had to work while taking care of the home (e.g., due to the closure of kindergartens and nurseries) as well as taking over certain responsibilities of their sick or quarantined colleagues. This section discusses two issues: the 2019 and 2020 sense of workload, and remote work. The following questions will be answered: Who felt the burden of work more strongly in the previous year?; What proportion of employees worked remotely?; and Who had a better chance to do so?

Men are more likely than women to feel the burden of work

First, we shall examine respondents' declarations regarding the sense of workload with respect to two issues expressed by either agreeing or disagreeing with the following statements: *I have too many tasks to perform them properly on time*; and *My work prevents me from devoting as much time to my loved ones as I would like to*.

It may be surprising that, when comparing the general population data for 2019 and 2020, no significant increase was observed in respondents' declarations regarding workload increase (Table 9). Between 2019 and 2020, the percentage of persons who agreed with the statement *I have too many tasks to perform them properly on time* is almost the same. However, this does not mean that 2020 did not bring any change in this area. Nevertheless, it did not affect the general population but only selected groups.

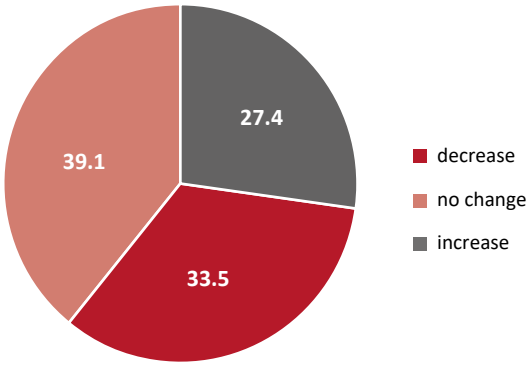
Table 9: Degree to which the respondent agrees with the statement *I have too many tasks to perform them properly on time* (%; N)

	2019	2020	N 2019	N 2020
strongly disagree	22.9	24.8	252	286
rather disagree	39.6	39.4	435	456
neither agree nor disagree	16.2	14.5	178	168
rather agree	15.9	16.8	175	195
strongly agree	5.3	4.3	58	50
refuse to answer	0.1	0.2	1	2

Source: BKL Study – population survey, 2019–2020.

With a certain degree of simplification, respondents' declarations allow the conclusion that in 2020 over 1/3 of respondents experienced workload increase and over ¼ – workload decrease (Figure 2).

Figure 2: Change in the attitude towards the statement (between 2019 and 2020) *I have too many tasks to perform them properly on time* (%; N = 748)



Source: BKL Study – population survey, 2019–2020.

* Decrease stands for workload reduction between 2019 and 2020; increase stands for workload increase; no change: the same answer at both points of the survey. The values were estimated by comparing the 2019 and 2020 answers of respondents to the following question: To what extent do you agree with the statement, *I have too many tasks to perform them properly on time*?

It may be surprising that men were more likely than women to declare that their workload increased in 2020 (Table 10). Considering the results of the subsequent analyses, it is also worth noting that the difference was particularly visible in the group of professionals (when compared to 2019, the 2020 percentage of men who felt that their workload was heavier was over two times higher than that of women). Regarding the sense of workload, the fact of having children proved essential. In families without children, a similar percentage of women and men claimed that their workload increased in 2020 compared to the previous year, while among families with children (regardless of the children's age), this percentage was higher among men.

We can cautiously hypothesise that the pandemic, including the necessity to work remotely while taking care of the children, who had classes at home, was felt more strongly by men than by women. Naturally, this assessment may result from the fact that women are more "accustomed" to combining multiple tasks (including childcare), but also from the fact that they were more likely to take full care of children using the special allowance paid for the time when kindergartens and schools were closed. It is worth adding that respondent's age was not a factor that would explain perceived workload increase in this case. Between 2019 and 2020, declarations in this regard increased in the youngest age group (18–29) only.

Table 10: Change (between 2019 and 2020) in the attitude towards the statement *I have too many tasks to perform them properly on time* vs respondent's gender, age, and the fact of having or not having children (%; N)

	decrease	no change	increase	N
gender				
man	32.9	36.6	30.5	766
woman	34.3	42.0	23.7	794
age				
18–29	31.4	33.6	35.0	316
30–39	33.9	43.3	22.8	383
40–49	33.7	36.4	29.9	327
50+	32.9	40.1	27.0	488
gender and having a child				
man – has a child below 8	33.0	40.2	26.8	126
woman – has a child below 8	29.6	51.7	18.7	139
man – has a child over 8	28.2	36.8	35.0	212
woman – has a child over 8	39.1	39.4	21.4	301
man – has no children	38.4	31.5	30.1	185
woman – has no children	28.6	40.8	30.7	122

Source: BKL Study – population survey, 2019–2020.

Basically, similar results were observed for the declaration regarding reconciling work and family life: general population data are not indicative of any significant changes in this regard between 2019 and 2020 (Table 11). The percentage visibly increased (by 4%) only in the case of the group of respondents who strongly disagree with the statement that work prevents them from devoting as much time to their loved ones as they would like to.

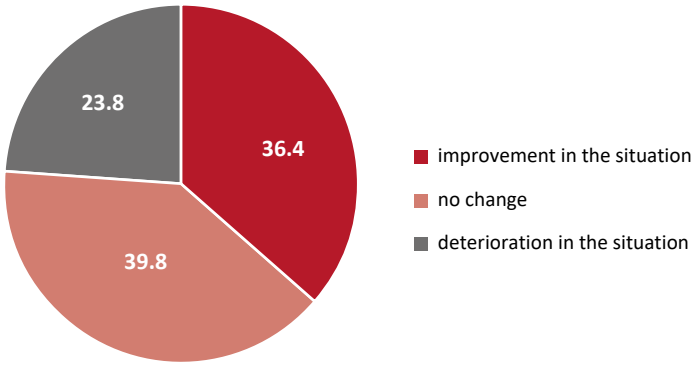
Table 11: Degree to which the respondent agrees with the statement *My work prevents me from devoting as much time to my loved ones as I would like to*

	2019	2020	N 2019	N 2020
strongly disagree	20.6	24.9	226	287
rather disagree	38.4	37.8	422	436
neither agree nor disagree	13.8	12.4	151	143
rather agree	17.9	16.6	196	192
strongly agree	9.4	8.3	103	96

Source: BKL Study – population survey, 2019–2020.

This does not mean that the year 2020 and the COVID-19 pandemic did not bring about any changes. However, the changes are visible not as aggregated data but rather as data broken down into categories: by age, gender, or feature, that is, having children. Although the overall picture of the population remains very similar in this respect, the situation of individuals evolved in terms of reconciling work and family life. It should be noted that in this case the change between 2019 and 2020 is positive: more than 36% of respondents noticed an improvement in the work-life balance, and less than 1/4 recorded its deterioration (Figure 3).

Figure 3: Change in the attitude towards the statement (between 2019 and 2020) *My work prevents me from devoting as much time to my loved ones as I would like to* (%; N = 748)



Source: BKL Study – population survey, 2019–2020.

*Deterioration in the situation stands for an increased sense of impossibility, between 2019 and 2020, to devote the right amount of time to the family, due to work; improvement stands for a decrease in the said sense; no change: same answer in both points of the survey. The values were estimated by comparing the 2019 and 2020 answers of respondents to the following question *My work prevents me from devoting as much time to my family as I would like to*.

Deterioration in work-life balance between 2019 and 2020 was most likely to be felt by relatively young persons, i.e., those aged 30–39. In 2020, less than 30% of respondents from this group found it more difficult to devote the right amount of time to their loved ones. When compared to 2019, in 2020, men with young children (under 8) were more likely than women in the same situation to agree with the statement *My work prevents me from devoting as much time to my loved ones as I would like to* (Table 12).

Table 12: Change (between 2019 and 2020) in the attitude towards the statement *My work prevents me from devoting as much time to my loved ones as I would like to* vs respondent 's gender, age, and the fact of having or not having children (%; N)

	improvement in the situation	no change	deterioration in the situation	N
gender				
man	32.9	43.0	24.0	766
woman	40.3	36.2	23.5	794
age				
18–29	37.5	43.5	19.0	328
30–39	32.0	38.4	29.6	412
40–49	39.4	39.0	21.6	330
50+	37.2	39.8	22.9	490
gender and having a child				
man – has a child below 8	27.1	40.8	32.1	126
woman – has a child below 8	37.5	35.7	26.8	139
man – has a child over 8	34.5	44.3	21.2	212
woman – has a child over 8	41.0	37.9	21.1	301
man – has no children	35.1	43.8	21.1	185
woman – has no children	38.2	34.8	27.0	122

Source: BKL Study – population survey, 2019–2020.

To sum up, considering the subjective feelings regarding the workload and the possibility of reconciling work and family life, no significant changes were observed in the general population data. Thus, the workload was similar in 2019 and 2020. However, that does not mean that the situation in this respect turned out to be stable, as some changes could be observed at the individual level. It may seem surprising that, after all, these were not women that mentioned workload increase but predominantly men with children.

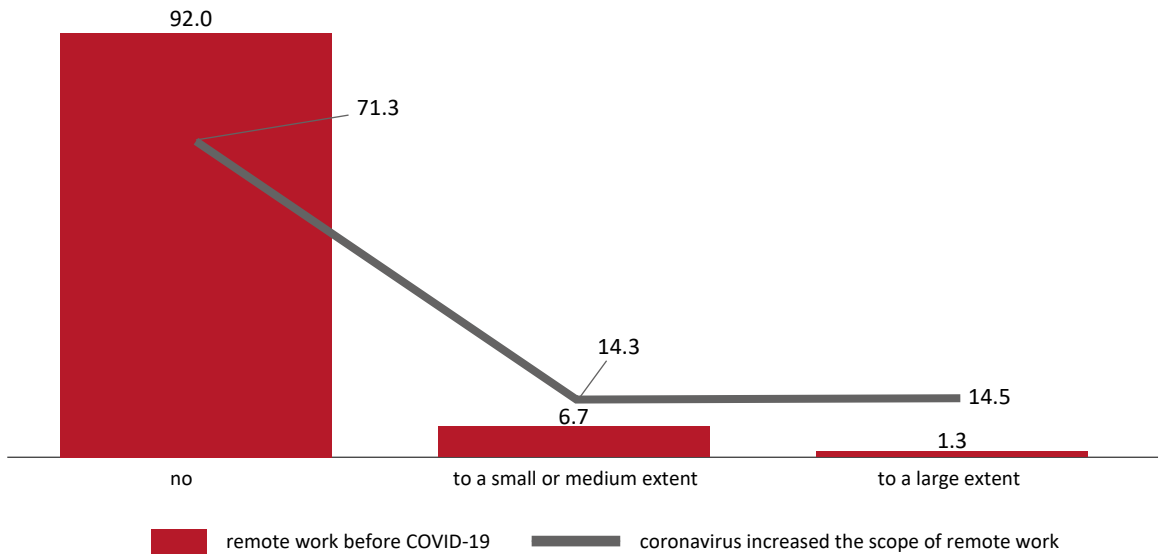
Before the pandemic, every twelfth Pole could do a proportion of work remotely

The BKL data indicate that in the period before the outbreak of the COVID-19 pandemic approximately 8% of employees declared they could work remotely (with no reference to the proportion of work done this way). However, the majority (over 80%) of these persons worked in the hybrid mode, with the prevalence of the traditional working mode. The situation was changed by the epidemic and the related restrictions; however, transition to remote or hybrid work affected rather a minority of employees: for most, the pandemic period did not differ – in terms of working modes – from the period before the COVID-19 pandemic (for about 7 in 10 employees, the pandemic did not increase the proportion of work done remotely). As can be seen in Figure 4, the pandemic significantly increased the portion of work done remotely only for 14.5% of respondents, while for 14.3% the change was rather negligible. These data complement the estimates by Statistics Poland, which recorded approximately 10% of Poles working remotely in 2020. It should be noted that for some employees the pandemic brought a complete shift to this working mode, while for others it increased the practice of combining hybrid work with remote and onsite work.

Proportion of remote workers
in the total number of working persons, Statistics Poland data
31 Mar 2020 11%
30 Jun 2020 10.2%
30 Sep 2020 5.8%
31 Dec 2020 10.8%

Source: Wpływ epidemii COVID-19 na wybrane elementy rynku pracy w Polsce w pierwszym kwartale 2021 r., Statistics Poland, June 2021.

Figure 4: Remote work before COVID-19 pandemic and the pandemic's effect on the work style (%; N = 760)



Source: BKL Study – population survey, 2020.

Dichotomy of the division into professions that allow and do not allow remote work

Naturally, not every profession allows remote work, and the BKL data indicate that such possibility is largely dependent on the type of job. In this case, two correlations can be seen. While it seems obvious that persons who, to some extent, could work remotely even before the pandemic had a greater possibility to increase their remote hours after the pandemic started, the other correlation seems less obvious. Usually, the more specialised the profession (higher positions in the ISCO Classification), the greater the possibility of remote work (Table 13). The division by occupations seems almost dichotomous: on the one hand, there are professions characterised by low likelihood of transferring to the virtual world, while other professions have high potential in this regard.

In the former case, these are mainly professions from the lower levels of the ISCO Classification, i.e., workers performing simple tasks (e.g., cleaners and persons performing cleaning tasks, and persons helping in meals preparation), farmers, gardeners, foresters and fishermen, operators and assemblers of machinery and equipment (e.g. drivers and

operators), industrial workers and craftsmen (e.g. construction workers, electricians, and electronics technicians). In general, before the COVID-19 pandemic, there was no remote work in these groups and the pandemic did not change that: in the case of most professions from these groups, work continued to be performed in the traditional form. These conclusions are not surprising as the specificity of the professions and their manual nature, at this stage, make their transfer to the virtual space impossible.

The latter group of occupations includes professions where work can be performed remotely. For the sake of systematisation, it would be worthwhile to divide them into two groups, (A) professions with low and medium virtualisation capacity; and (B) professions with high virtualisation capacity. Group A includes service and sales workers and clerical support workers: in their case, remote work was rare before the pandemic; however, during the pandemic a small proportion of employees switched to remote or hybrid work.

Group B includes employees with professions characterised by the greatest virtualisation capacity, i.e., managers, professionals, and associate professionals. These groups worked remotely even before the outbreak of the COVID-19 pandemic, but usually only to a limited extent (in the hybrid mode). This area is dominated by professionals of who as many as 61% recorded an increase in remote work due to COVID-19 (including 39% who recorded a significant increase). It is also not surprising that, before the pandemic, ICT professionals were definitely at the forefront in this regard and, additionally, it is not surprising that the pandemic brought greatest increase in the amount of remote work among teachers and education professionals.

To sum up, it seems that the pandemic did not bring new changes but simply strengthened certain processes involving partial transition to remote work among persons working in specialised professions. Professions in which this working mode had been previously experimented with had a better chance of introducing more radical work virtualisation solutions during the COVID-19 pandemic. The profession that underwent most profound transformation was teaching, which, before the pandemic, was performed remotely to quite a limited extent compared to other specialist professions.

Table 13: Remote work before the COVID-19 pandemic and the effect of the pandemic on the work style and the profession of respondents (%; N)

Profession practised	performed remote work before COVID-19	performed remote work before COVID-19 (to a large extent)	increased scope due to COVID-19	significantly increased scope due to COVID-19	N
managers	15.7	0.0	45.7	16.7	92
professionals	12.7	2.6	60.9	38.7	282
associated professionals	13.0	1.1	31.8	9.6	155
clerical support workers	5.9	4.0	24.7	7.7	80
service and sales workers	3.3	1.5	10.5	6.9	133
skilled workers	2.5	0.0	7.0	0.0	157
operators and assemblers	2.7	0.0	0.5	0.0	111
farmers	0.0	0.0	0.0	0.0	70
unskilled workers	0.0	0.0	0.0	0.0	49

Source: BKL Study – population survey, 2020.

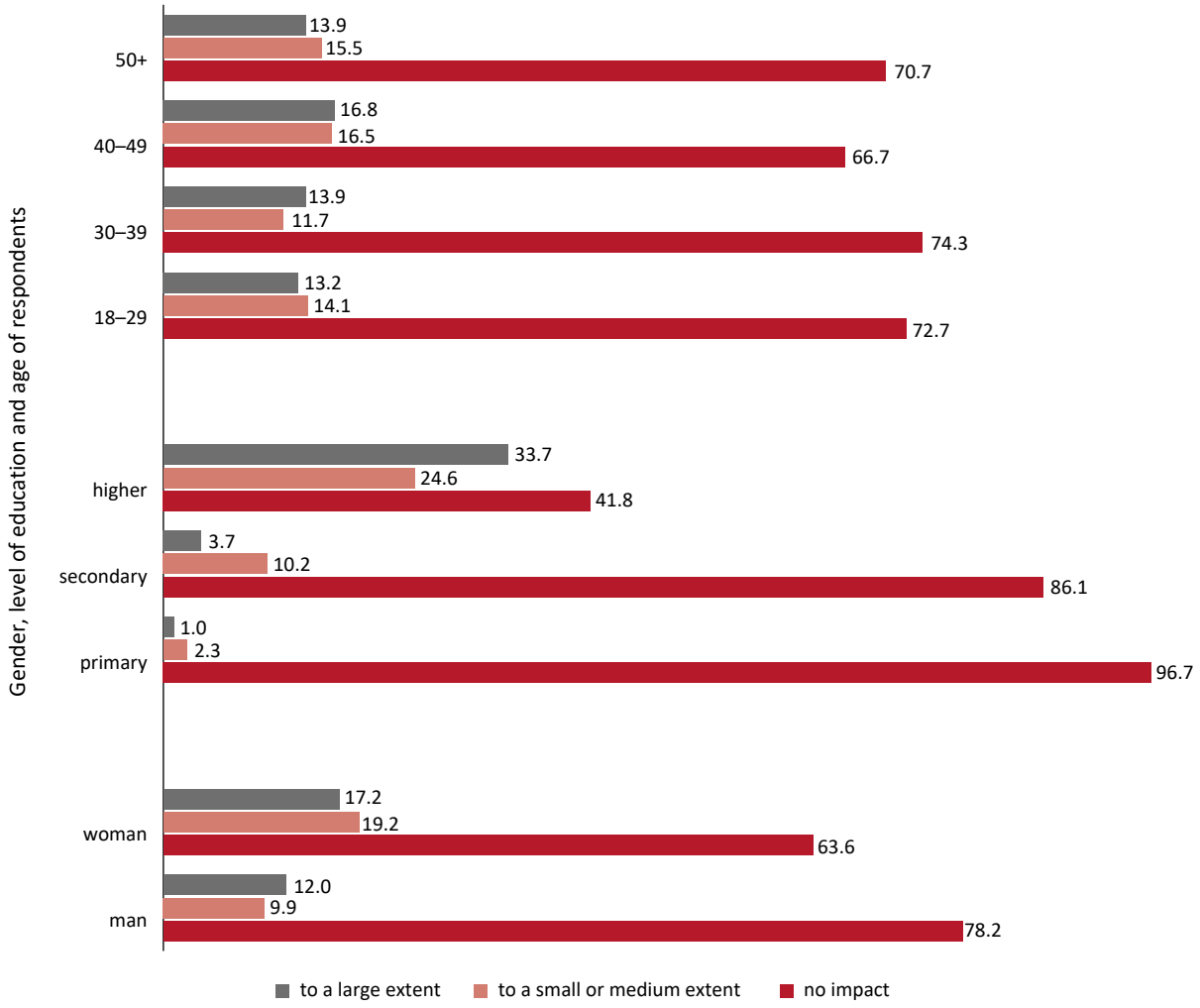
Chances for remote work during the pandemic also depend on the respondent's education and, though to a lesser extent, their gender and age. Furthermore, it should be noted that these differences are related to the profession practised by the respondent.

For every third person with higher education the pandemic led to a significant increase in the possibility of remote work, while for almost every fourth person, the scope of such work increased slightly (however, it should be noted that a large proportion of these persons had also, to some extent, worked remotely before the pandemic). Approximately 42% of the best-educated persons did not experience any change in this regard. Compared to persons with secondary and lower education, this percentage is relatively low (in these groups, the percentage was 86% and 97% respectively).

Moreover, it should be noted that the situation of women changed more than the situation of men: last year, 36% of women increased the scope of remote work (compared to 22% of men). It should be added that before the pandemic as many as 90% of men and 94% of women did not work remotely at all. Once again, the differences may be related to the specificity of work more often performed by women than by men, including the centrally imposed remote/hybrid teaching in schools and universities.

Least significant for the topic discussed in this subchapter turned out to be respondents' age. The percentage of respondents who declared their scope of remote work increased as a result of the COVID-19 pandemic is similar across all the age groups: no significant differences are observed in this respect. The group of middle-aged persons (40–49) only includes a slightly higher percentage of respondents who recorded changes in this regard (approximately 33% compared to 26–29%) (Figure 5).

Figure 5: Impact of the COVID-19 pandemic on the style of work vs. respondent's gender, education, and age (%; N gender and age = 1,560; N education = 1,101)



Source: BKL Study – population survey, 2020.

To sum up, the pandemic does not seem to have significantly increased the possibility of remote work for most employees. Basically, it deepened the previously visible differences: the employees who had had the opportunity to use this mode of work to a certain extent, during the pandemic were much more likely to increase the scope of remote work. Primarily, this group includes persons with specialist professions and in managerial positions. We can expect further virtualisation of these professions, as well as continuation of the trend towards hybrid work also after the pandemic. Besides, most professions, before, during, and after the pandemic were, are, and most likely will be performed in the traditional way.

Entrepreneurial activity under COVID-19 restrictions

Those running their own businesses accounted for 18% of all working persons, with approximately two-fifths of entrepreneurs involved in agricultural activity and three-fifths operating outside agriculture. It should also be noted that small businesses are likely to be family businesses: among all working persons, 13% declared that although they did not run their own businesses, in the period between the surveys they provided unpaid help with a business of another family member. Thus, the self-employed may seem a small group when compared to wage earners on employment contracts, but they are of particular importance for the economy, which is why it is worthwhile to take a closer look at their situation during the perturbations and restrictions of the COVID-19 pandemic.

Who are the self-employed?

First of all, a brief socio-demographic description of the self-employed deserves attention[7]. Table 14 summarises the data on the average age, gender, education, and place of residence of entrepreneurs vs the background of wage earners, non-working persons, and the general public. On average, persons running their own businesses are older than those relying on other forms of employment, by 8 years in the case of agricultural activity, and by over 3 years

[7] By the self-employed we mean people who answered affirmatively to the question whether they pursue their own business or agricultural activity, no matter whether they work by themselves or employ other employees.

in the case of non-agricultural activity. Much more frequently these are men; while women account for 50% of the total number of wage earners, they constitute 32% of agricultural entrepreneurs, and 29% of those outside agriculture[8]. In terms of education, there is a very significant difference between the self-employed in and outside agriculture: education statistics for the former are substantially below the average for the general population, while the latter top the educational ranking, clearly ahead of wage earners.

Table 14: Description of the self-employed in and outside agriculture compared to other working and non-working persons

	agricultural businesses	non-agricultural businesses	wage earners*	non-working persons	total
sample size	N = 81	N = 129	N = 985	N = 365	N = 1,560
average age	47.8	43.2	39.9	47.8	42.4
women (%)	32	29	50	65	51
with the secondary school certificate** (%)	38	76	68	47	62
with higher education (%)	14	50	43	19	37
living in the countryside	91	37	38	42	42
living in cities of 100,000 or more residents (%)	5	33	27	24	26

* Employees on employment contracts or civil-law contracts.

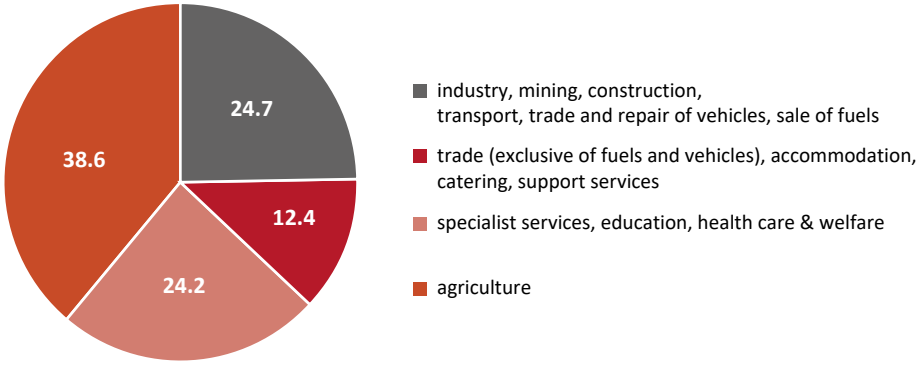
** Includes persons who subsequently graduated from universities.

Source: BKL Study – population survey, 2020.

Due to the relatively small number of enterprises covered by the study, each company's sector of activity was assigned one of the four groups of sectors: agriculture; industry, construction & transport; trade and services (including accommodation and catering); and specialist services (including consultancy, IT, education, and medical services) (Figure 6).
In all these groups of sectors, men were more numerous than women. The relatively high proportion of female entrepreneurs was observed in trade and services (46%), while the smallest proportion of women was recorded in industry, construction & transport (only 10%).

[8] Similarly, the proportion of women among persons helping with family businesses for free stands at 35%.

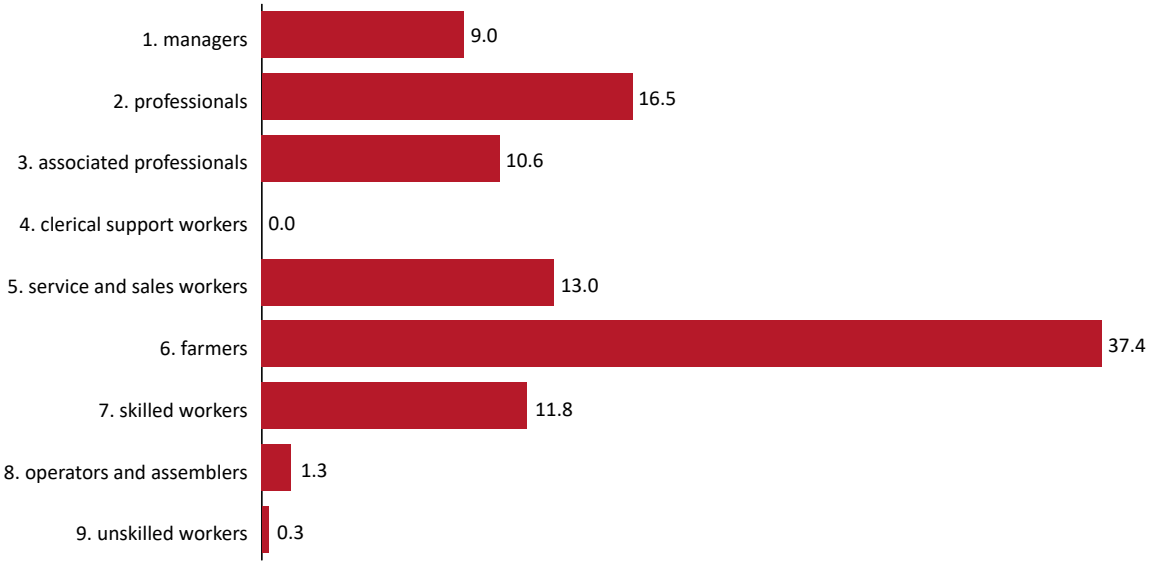
Figure 6: Sectors of entrepreneurial activity (%; N = 209)



Source: BKL Study – population survey, 2020.

Figure 7 shows the occupational distribution of entrepreneurs. Apart from farmers, most numerous were the categories of professionals, service and sales workers, and skilled workers. The categories of skilled workers, operators and assemblers were in 100% comprised of men. The category with a relatively highest percentage of women was services and sales (48% of women).

Figure 7: Categories of occupations performed by persons running their own businesses (%; N = 212)



Source: BKL Study – population survey, 2020.

Dynamics of changes in the establishment and closure of companies

Every year, new companies open and some of the existing ones are closed. In 2020, companies were started by 1.2% of persons who had not been running a business the year before, and closed by 9.9% of those who had. In order to assess the changes that took place in 2019–2020, we should compare them with the changes in the previous years (Table 15). The analysis covered persons who were surveyed in two consecutive years. Thanks to this, it was possible to establish the percentage of persons who did not pursue business activity in a given year, the percentage of persons who started businesses in the following year, and the percentage of persons who ran businesses in a given year but stopped in the following year.

Table 15: Percentages of businesses established and closed compared to the previous year (%; N)

Persons not running business/farming activity in the preceding year

Period	Percentage of businesses established	N (preceding year)
2017–2018	1.7	1,305
2018–2019	1.1	876
2019–2020	1.2	987

Persons running business/farming activity in the preceding year

Period	Percentage of businesses closed down	N (preceding year)
2017–2018	11.7	218
2018–2019	10.6	138
2019–2020	9.9	155

Source: BKL Study – population survey, 2019–2020.

In all three periods, the percentage of persons who decided to start their businesses oscillated between 1% and 2%. In addition, the percentage of existing companies that were closed in the following year decreased from 11.7% to 9.9%. Admittedly, this is a statistically insignificant change, but the result shows that during the period of pandemic restrictions closure of businesses did not increase. However, it is worth noting that, unlike in the previous periods, between 2019 and 2020, this phenomenon mainly concerned the newest companies, established in the second decade of the 21st century. During this time, business was closed by 3.3% of companies established before 2000, 5% of companies established in 2000–2009

and 16.9% of companies with a shorter market presence (Table 16)[9]. When asked about the reason for closing down, about every seventh entrepreneur pointed directly to the COVID-19 pandemic restrictions.

Table 16: Percentage of closed down companies depending on the year of establishment (%; N)

	Year of establishment			
Period	**–1999**	**2000–2009**	**2010–**	**Total**
2017–2018 (N = 218)	13.0	6.0	14.7	11.7
2018–2019 (N = 138)	6.3	13.1	13.1	10.6
2019–2020 (N = 155)	3.3	5.0	16.9	9.9

Source: BKL Study – population survey, 2019–2020.

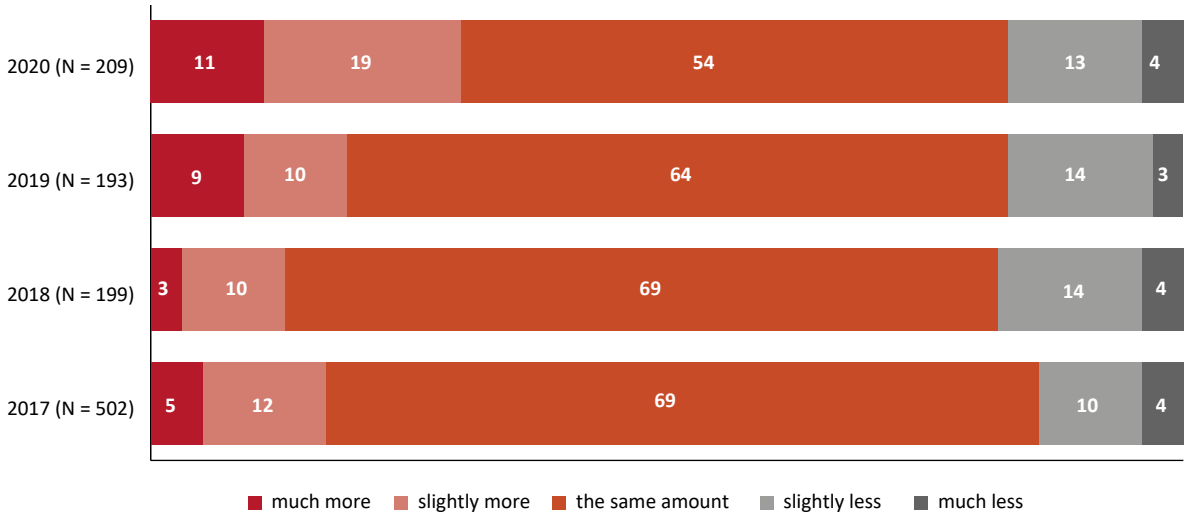
More work for legal, consultancy, and IT service companies

The self-employed were asked to compare the amount of time currently dedicated to business with the amount of time dedicated to business the year before[10]. Compared to the previous years, there has been an increase in the percentage of entrepreneurs reporting that recently they dedicated more time to their business than before (Figure 8). The total percentage of such declarations increased from 13% in 2018 to 19% in 2019, and to 30% in 2020. Naturally, one needs to bear in mind that these are the aggregated data for all companies, while the situation differed between the sectors. A visible increase occurred for agricultural activity, as well as (particularly strong) in the group of sectors related to specialised services, such as law, economic and management consultancy, accounting and taxes, and IT services (Figure 9). It is easy to notice that these are the types of services for which demand may have increased during enterprises' struggle with COVID-19 restrictions introduced across the country.

[9] Companies from non-agricultural sectors were largely closed.

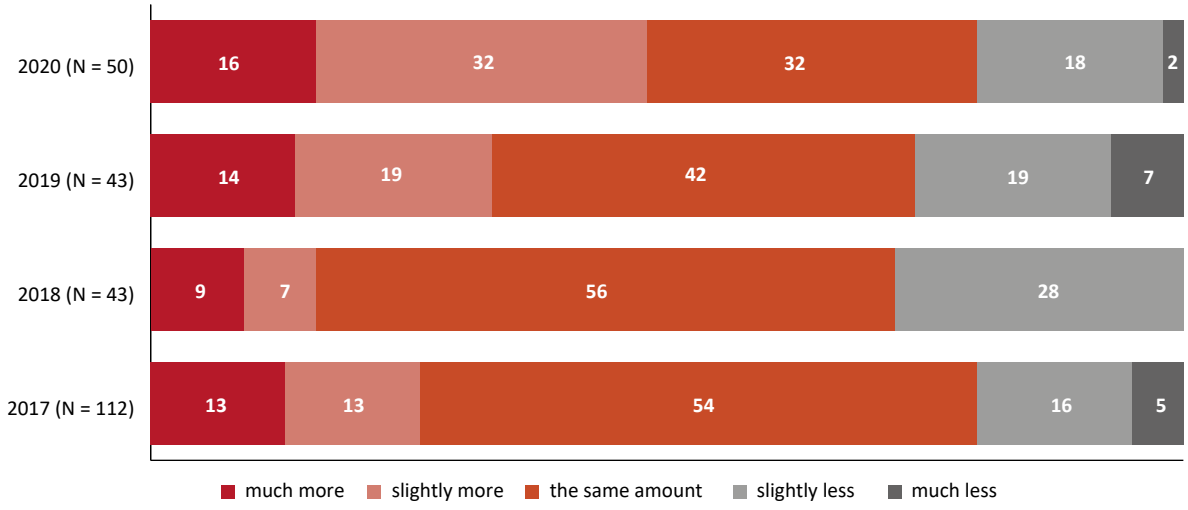
[10] Persons who were not surveyed the year before were asked to make a comparison with the period when they previously participated in the study.

Figure 8. Amount of time currently dedicated to work compared to the previous period (all companies) (%; N)



Source: BKL Study – population survey, 2019–2020.

Figure 9. Amount of time currently dedicated to work compared to the previous period (companies from specialist sectors) (%; N)



Source: BKL Study – population survey, 2019–2020.

Pandemic restrictions as the main obstacle to entrepreneurial activity

To a smaller or greater extent, most of those pursuing business activity were affected by the COVID-19 restrictions. This problem definitely came to the forefront against all the other types of difficulties that respondents are asked about every year in the BKL Study (Table 17).

Table 17: Difficulties in pursuing business activity depending on the industry (multiple responses possible) (%; N)

	Agriculture	Industry, mining, construction, transport*	Trade**, accommodation, catering, support services	Specialist services, education, health care activities	Total
sample size	N = 76	N = 49	N = 25	N = 49	N = 200
pandemic restrictions	44	69	81	48	56
excessive tax burden	25	37	26	51	35
excessive competition	30	29	44	34	33
onerous legislation	37	16	22	41	31
lack of appropriate staff	9	14	12	4	10
health	17	8	0	2	9
poor financial situation of the company	15	1	0	3	7
other reason	11	5	2	0	6
caring for a child/family member	6	4	0	8	5
age	8	2	0	4	5

* Includes trade and repair of vehicles and sale of fuels.

** Trade, exclusive of sale of vehicles and fuels.

Source: BKL Study – population survey, 2020.

More than a half of the entrepreneurs surveyed (56%) mentioned the COVID restrictions as one of the main problems for their current business activity. For obvious reasons, the COVID restrictions were particularly strongly felt in the trade and service sector (including accommodation and catering) (81%). The three challenges that had been on the top of the ranking in the previous years i.e., high taxes, strong competition, and onerous legislation

were ranked as second, with an almost equal percentage of responses each (between 31% and 35%). The only, yet noteworthy, exception was the sector of specialist services (in particular, consultancy and IT): persons pursuing business activity in these fields were slightly more likely to complain about high taxes than about COVID-19. It should be stressed that the overall percentages of entrepreneurs complaining about taxes, legislation, and the hardships of competition remained virtually unchanged when compared to the previous years. Thus, the coronavirus crisis merely added new concerns to the already existing ones. However, when asked to identify the problem which they found most serious, entrepreneurs did not necessarily point to the pandemic restrictions (Table 18). Onerous legislation was slightly more frequently considered the key problem (22%). This is where the restrictions were ranked second (21%), slightly ahead of the struggle with competitors (18%), and excessive tax burdens (15%). The COVID-19 restrictions were relatively least frequently mentioned in agriculture (10%), and most frequently in trade and services (36%).

Tabela 18. The most serious difficulty in entrepreneurial activity depending on the industry group (%; N)

	Agriculture	**Industry, mining, construction, transport***	**Trade**, accommodation, catering, support services**	**Specialist services, education, health care activities**	**Total**
sample size	N = 72	N = 48	N = 25	N = 50	N = 195
pandemic restrictions	28	13	20	22	22
excessive tax burden	10	29	36	22	21
excessive competition	18	17	28	14	18
onerous legislation	6	25	8	24	15
lack of appropriate staff	13	4	0	2	6
health	10	0	0	2	4
poor financial situation of the company	1	8	8	2	4
other reason	8	4	0	0	4
caring for a child/family member	4	0	0	8	4
age	3	0	0	4	2
Total	100	100	100	100	100

* Includes trade and repair of vehicles and sale of fuels.

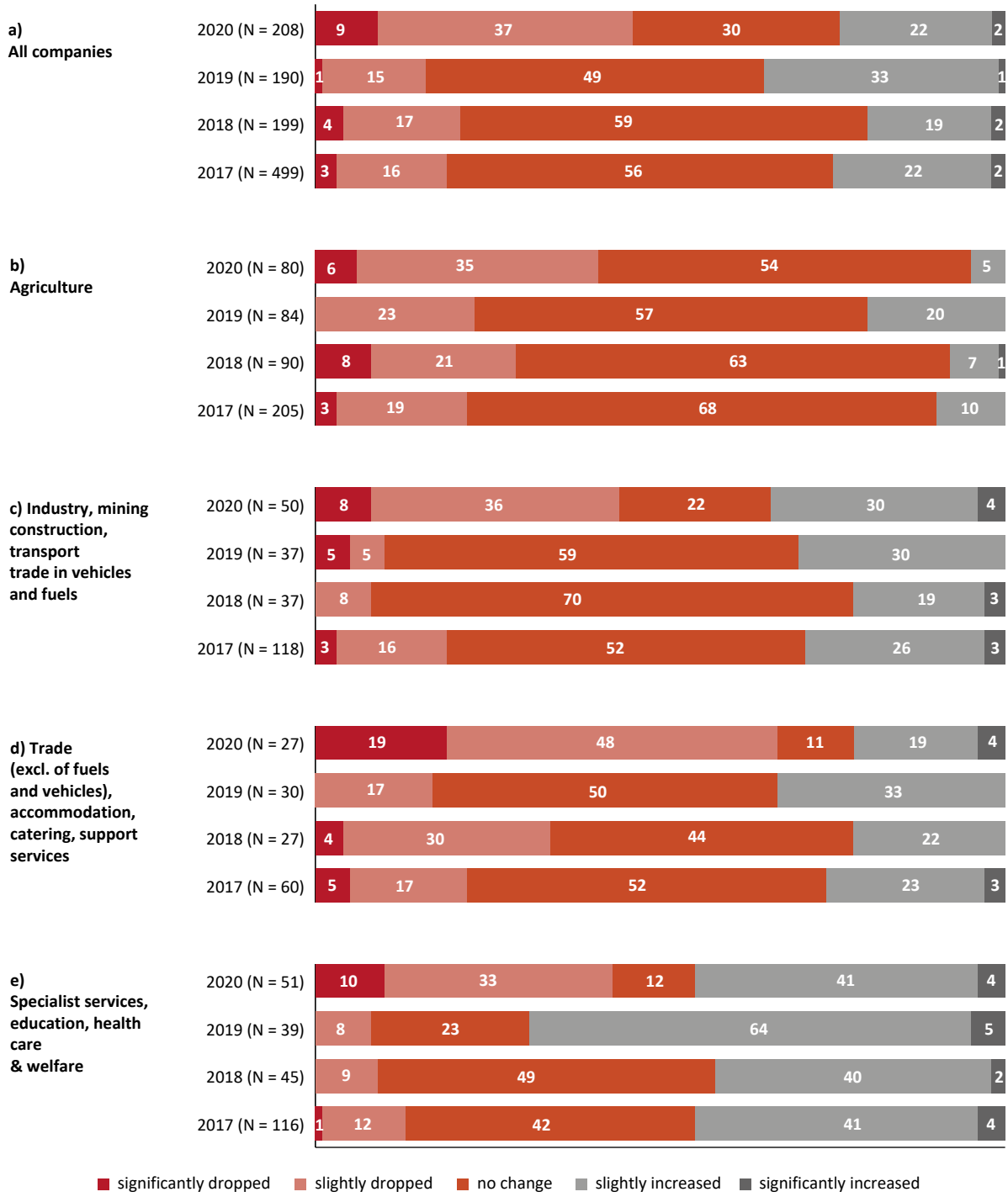
** Trade, exclusive of sale of vehicles and fuels. Source: BKL Study – population survey, 2020.

Dramatic increase in the number of companies experiencing turnover decrease

In the 2017–2019 period, the percentage of companies that recorded turnover stability in relation to the previous study varied between 49 and 59% annually (Figure 10a). Other companies experienced either a decrease or increase in turnover, but in those years the number of companies on the upward path was equal to or higher than the number of those whose turnover declined. This changed dramatically in 2020. The percentage of stable companies dropped to 30%, and almost a half experienced a decrease in turnover. Compared to 2019, the percentage of companies with increased turnover dropped to 24%, thus returning to the level observed in 2017–2018.

The situation varied depending on the sector. In the case of agriculture, most companies maintained their turnover level, but the percentage of companies suffering a decline increased significantly at the expense of companies experiencing growth (Figure 10b). In the case of other sections of the economy, the 'no change' category diminished dramatically. In the industry, construction & transport sectors, 44% of companies experienced a decrease in turnover (compared to only 10% in 2019) (Figure 10c), and in the trade and service sectors, as much as 67% (compared to 17% the year before) (Figure 10d). The sector of specialist services (mainly related to consultancy and IT) experienced a polarisation in 2020: turnover decreased for 43% of companies and increased for 45%. However, while such percentage of expanding companies was typical for the 2017–2018 period, the high percentage of companies with declining turnover dramatically differed from the pattern observed in the previous years when decrease affected approximately 10% of companies (Figure 10e).

Figure 10: Change in the company's turnover compared to the previous period (%; N)



Source: BKL Study – population survey, 2019–2020.

Of the few entrepreneurs who recorded turnover increase only one in six associated it with the COVID-19 pandemic. At the same time, in the case of companies that experienced declining turnover, the decrease was attributed to the difficult situation related to the epidemic by as many as four in five self-employed. In the industry, construction & transport sectors, the percentage reached 94%, and in trade, services, accommodation, and catering even 100% (Figure 11).

Figure 11: Percentage of owners who attributed turnover decile to coronavirus-related problems (%; N)

* The Industry, mining, construction and transport category includes trade in fuels and vehicles.

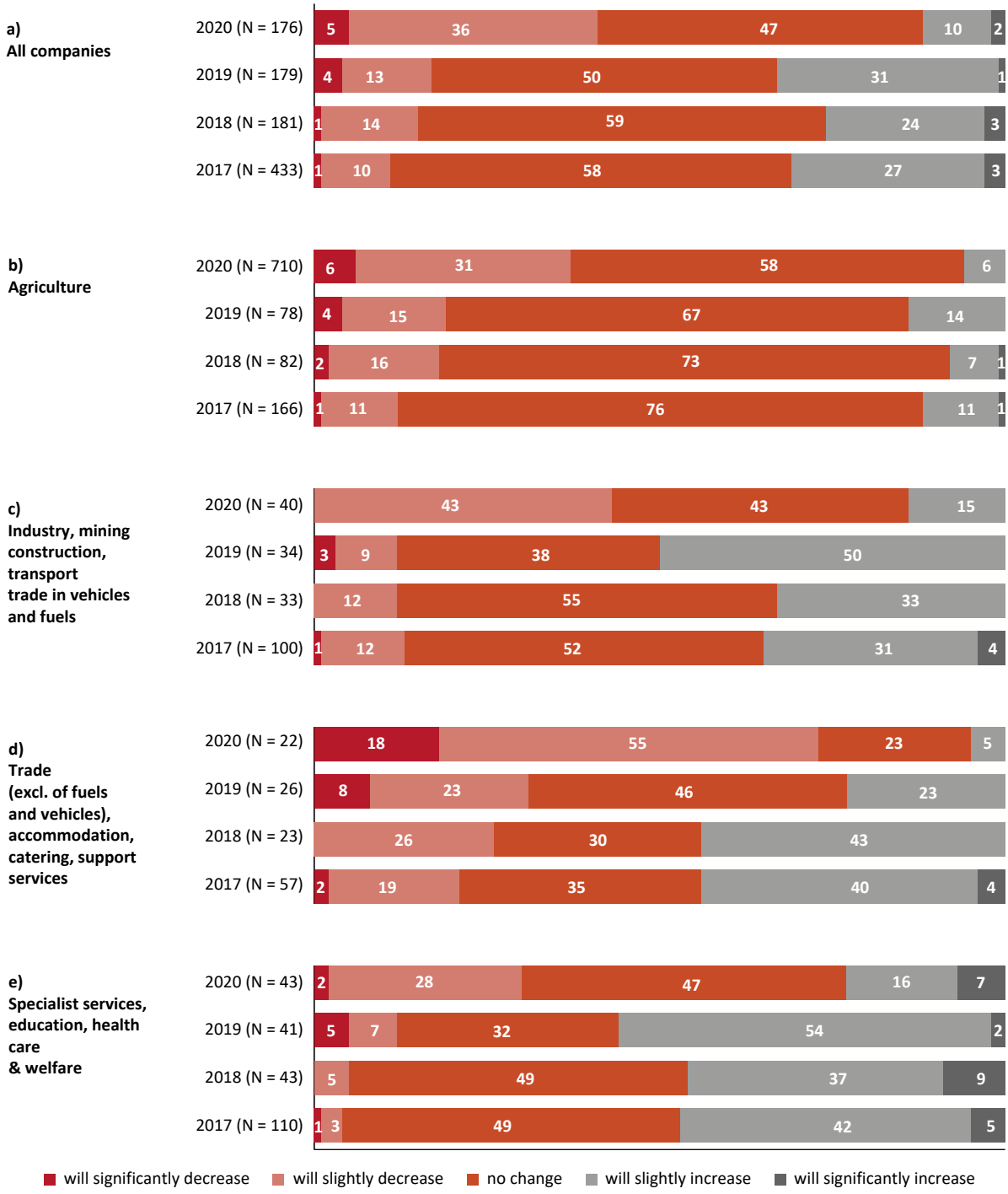
** The Trade... category does not include sale of vehicles and fuels.

Source: BKL Study – population survey, 2020.

Companies expect a further decrease in turnover within the next year

Looking ahead, entrepreneurs painted a gloomy picture of the coming 12 months. In all groups of sectors, the percentage of companies that expected turnover decline increased dramatically, and the percentage of entrepreneurs who expected growth dropped to the minimum level (Figure 12). The situation is particularly disturbing in the group of sectors most affected by the COVID restrictions, i.e., trade, catering, accommodation, and support services. Almost three in four companies expected a decrease in turnover, including every fourth expecting a significant decrease (Figure 12d). In addition, the mood changed drastically in sectors relatively least affected by the restrictions, i.e., specialist services (consultancy, accounting, IT, etc.). While in the previous years they were characterised by a very high level of optimism – usually about a half of the companies expected turnover increase (in 2019, as much as 56%) and only a few percent were anxious about a possible decrease (up to 12% in 2019)—in 2020, pessimists outnumbered optimists (Figure 12e).

Figure 12: Expected change in the company's turnover in the coming 12 months (%; N)



Source: BKL Study – population survey, 2019–2020.

In almost all cases, the expected decrease in turnover was attributed to coronavirus-related problems (Figure 13). In this respect, agriculture slightly stands out, but this is only a difference in degree, as in more than a half of the cases decrease was associated with COVID-19 difficulties as well.

Figure 13: Percentage of company owners who attributed the expected turnover decrease to coronavirus-related problems (%; N)

* The Industry, mining, construction and transport category includes trade in fuels and vehicles.

** The Trade... category does not include sale of vehicles and fuels.

Source: BKL Study – population survey, 2020.

Results of the next BKL Study will make it possible to determine the extent to which the gloomy scenarios, as outlined by entrepreneurs affected by the restrictions imposed to prevent the spread of the SARS-CoV-2, will materialise.

Summary

A superficial comparison of data for the Polish labour market between 2019 and 2020 may seem not to reveal serious differences. The general percentage of working persons was maintained; workload perceptions were very similar; the percentage of companies closed down in the last year did not increase in relation to the previous periods. However, a closer look at the data shows that the period of the special conditions present during the COVID-19 pandemic influenced the particular categories of persons differently. Decrease in employment, small at the level of the general public, was more strongly felt by younger persons and those working in trade and services. Income decrease was most likely to affect persons in the best financial situation, reducing their advantage over the other working groups. Remote

work became more popular, although its scope increased most significantly in the group of employees who had already had this type of experience. The “COVID time” was particularly difficult for persons running their own businesses. Pandemic-related restrictions affected most companies, and for many became the most serious obstacle to operations. Turnover dynamics dramatically deteriorated in that period and, unfortunately, in the near future companies expect further deterioration in this respect. Future BKL Studies will make it possible to determine the extent to which reality will confirm these pessimistic forecasts.

Companies resilient to crisis? Organisational culture and management methods of Polish companies

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Introduction

Culture is all the norms, values, and ways of acting characteristic of a given group (Chatman and O'Reilly, 2016). In organisations, this definition covers a multitude of specific types of behaviours, communication tools, and everyday ways of thinking and solving problems, of employees and managers of particular institutions and enterprises. An organisation's culture is its operating system, defining the implicit patterns of tackling the company's reality. Although it is often inaccessible and implied, organisational culture has an overwhelming impact on the way employees behave and plays a decisive role in the efficiency of managers' actions (Chatman, Caldwell, O'Reilly and Doerr, 2014).

Unfortunately, enterprises very often appreciate the power of culture only when they experience it as a source of resilience to organisational change or when... a crisis happens. Crisis, a phenomenon with low likelihood of occurrence but far-reaching consequences characterised by a considerable degree of ambiguity of reasons and methods of dealing with it (Pearson and Clair, 1998), is an endurance test for every organisation. In a situation like that, particularly important is the culture of the company and the management methods it uses related to decision-making principles, work organisation, and the time horizon of enterprise planning. Also important is the confidence in proven and reliable personnel management tools.

The previous editions of the BKL Study enabled identification of the dominant values and rules related to management in companies. In Poland, it is the organisational clan culture, where the company is perceived as a family, that is most common. Besides, in Polish organisations, management methods characteristic of this culture include employees involved in decision-making only to a limited extent, advanced employee recruitment and development tools are absent, and the planning perspective rarely goes beyond the next year. Can companies with such organisational culture and such limited range of management tools survive a pandemic-related crisis? Or are these organisations based on hierarchy, clear division of tasks, long-term planning perspective, and hard personnel management tools that are more resilient to crises? Or maybe the answer is not a specific organisational culture, but organisation's flexibility? This chapter attempts to answer these questions.

Since the results apply to a study conducted during the pandemic (autumn 2020), first, we will present the experiences of medium-sized and large companies, related to the epidemiological crisis. Next, we will describe the most important indicators related to the strategy of these companies and the activities they undertake with respect to human capital management. Also, we will describe the changes in the organisational culture of medium-sized and large enterprises that took place during the pandemic. Finally, we will define the profile of companies "resilient to crisis" which, thanks to the unique configuration of elements of culture and management methods, managed to cope better in the pandemic situation.

First of all, it would be good to briefly describe the data used in the analyses, and discuss what the studies that enabled their collection looked like. Due to the pandemic, the employer survey was conducted between 5 October and 10 December 2020, mainly by means of telephone interviews (78% of interviews used this technique). At that time, 1,096 interviews were conducted, which included 656 companies from the panel sample, also surveyed in 2018 and 2019. According to the plan of the panel study, only medium-sized and large companies were covered, i.e., respectively, ones that employed from 50 to 249, or over 250 people. With respect to headcount, bear in mind that for the purposes of the panel study, the starting point for selection of the companies was the sampling frame developed in 2017 (known as the establishment sample). This selection was stratified with regard to the company's business sector (six general types of business activity were used to describe the results), and the headcount (breakdown into small, medium-sized, and large companies). Therefore, the 2017 sampling frame continued to be the basis for calculating post-stratification and panel weights. Also, the consequence of this panel structure is the fact that the number

of employees represents the 2017 headcount, regardless of the changes that may have taken place since.

Negative effect of the pandemic on medium-sized and large enterprises

The COVID-19 pandemic and the related epidemiological and legal restrictions had an impact on the functioning of the Polish labour market. First imposed on 20 March 2020, the restrictions caused changes in the operations of companies, both directly and indirectly, through new consumer behaviours. The pandemic's actual impact on the labour market can be assessed after the pandemic subsides, but even now macroeconomic indicators show an economic slowdown. When the BKL Study was carried out, in autumn 2020, we asked the representatives of medium-sized and large companies a number of questions to determine what the specific effects of the pandemic were in their case. Bear in mind that the study was conducted at the peak of the second wave of the pandemic in Poland i.e., at the turn of autumn and winter 2020.

Based on the declarations obtained, we can conclude that two-thirds of medium-sized and large **companies experienced the negative effects of the pandemic (65%).** The impact was slightly more severe for the largest entities, employing at least 250 people. **To a much greater extent, pandemic experiences differ by the sector in which the entrepreneur operated (Table 1). The effects of the pandemic were most likely to be felt in the case of trade, hotel, and catering sectors, which were most affected by the restrictions (as indicated by 80% of the companies).** The most severe effect mentioned by entrepreneurs from this sector was, first of all, the decrease in the number of orders (96% of responses), which probably also led to the reduction in production and services (73% of responses), loss of customers and suppliers (64% of responses), reduction in the number of working hours (64% of responses), and reduction in wages (62% of responses).

Table 1: Negative effects of the pandemic for medium-sized and large companies from various sectors (%; N)

Sector	Construction & transport	Education	Trade, accommodation, catering, support services	Health care & welfare	Industry & mining	Specialist services	Total
pandemic experience	**45**	**73**	**80**	**67**	**76**	**63**	**65**
temporary suspension of business activity	20	54	39	33	19	39	36
headcount reduction	41	15	44	19	37	36	33
reduction in wages	49	23	62	24	57	46	45
reduction in the number of working hours	61	64	64	35	59	61	61
reduction in production/ services	72	48	73	55	65	64	63
drop in the number of orders	84	11	95	32	71	71	62
loss of customers/ suppliers	49	12	64	28	37	42	39
N	127	78	157	94	159	35	650

Source: BKL Study 2020 – Employer survey.

The other sector in which **the negative impact of the pandemic was most likely to be experienced was industry & mining, as indicated by 76% of representatives of the companies from this sector.** In this sector, the most severe effect was the reduced number of orders (71% of responses) and, like in the service sector, that resulted in the reduction in production and services (65% of responses), reduction in the number of working hours (59% of responses), and reduction in wages (57% of indications). **In the sector of education, 73% of medium-sized and large companies felt the effects of the pandemic,** although in this sector it mainly resulted in a reduction in the number of working hours (64% of responses) and periodic suspension of business activity (54% of responses). **On the other hand, the sector least affected by the negative effects of the pandemic was construction & transport (45% of answers of companies from the sector).** In this sector, the effects of the pandemic were similar to those observed in the service and industrial sectors: reduction in the number

of orders, reduction in production and the services provided, and reduced working hours (84%, 72% and 61% of responses respectively).

Besides, the reaction of medium-sized and large companies to the pandemic and the related restrictions deserves attention. One of the most noticeable reactions of the labour market was introduction of remote work.

However, as shown by the Statistics Poland data for Q2 2020, only 10% of all employees in Poland worked using this method (Statistics Poland, 2020). According to the declarations of medium-sized and large companies surveyed in the BKL Study, 59% introduced the possibility, but this does not mean it covered all the employees (Table 2). When it comes to differences between the sectors, the picture is not surprising: most frequently, companies shifting to remote work were those from the education sector (90% of responses), and least frequently, construction & transport companies (36% of responses).

Table 2: Introduction of remote work during the pandemic among medium-sized and large companies from various sectors (%; N)

remote work	Construction & transport	Education	Trade, accommodation, catering	Health care & welfare	Industry & mining	Specialist services	Total
before the pandemic	4	3	4	4	3	4	4
introduced during the pandemic	36	90	47	55	51	62	59
not introduced	61	6	50	42	46	34	38
N	109	236	202	77	326	147	1097

Source: BKL Study 2020 – Employer survey.

The pandemic was and still is a phenomenon that seems to be changing many companies' approach to modes of work, making business owners and managers aware of the potential of remote and hybrid work. Many opinions were expressed claiming that the changes would be permanent (Prokopowicz and Pawlak-Mihułka, 2021; BIGRAM, THINKTANK 2021). However, the responses of representatives of medium-sized and large companies are rather conservative in this regard. **Only 25% declared they would keep remote work as a work arrangement after the pandemic.** Representatives of companies from the education sector

were slightly more likely than others to mention this option, but it was still every third medium-sized or large entrepreneur.

What changed in enterprises' management strategies?

Major changes at macroeconomic level, and, in the case of a phenomenon like a pandemic, changes that have a more multidimensional impact: social, political, and even cultural, make companies modify their action strategies. A comparison of the results from the period before the pandemic with results obtained during the pandemic's second wave reveals what changed in this regard in medium-sized and large companies, and what the changes looked like.

With respect to action plans, the pandemic made medium-sized and large companies begin to pay slightly more attention to this area, as compared to the pre-pandemic situation (Table 3). In general, **almost a half of the companies that had action plans before the pandemic confirmed having them in the autumn of 2020 (47%). One fifth of medium-sized and large companies developed an action plan during the pandemic (22%), while every seventh company gave up planning in that period (14%).** When the sectors are compared, it can be seen that the percentage of entities which resigned from action plans is higher in the case of companies from sectors more affected by the pandemic i.e., trade, accommodation, catering (18%), industry & mining (18%), and health care & welfare (17%), which may point to the cause of such changes. **Interestingly, in construction & transport**, i.e., the sectors relatively least affected by the pandemic, action plans were developed by the largest number of medium-sized and large companies (34%). It may suggest that the sectors most affected by the pandemic shortened their strategic perspective, while those least affected seized the opportunity to plan long-term.

Table 3: Changes regarding action plans in medium-sized and large companies from various sectors (%; N)

change regarding action plans	Construction & transport	Education	Trade, accommodation, catering	Health care & welfare	Industry & mining	Specialist services	Total
gave up	7	10	18	17	18	13	14
did not have and do not have	20	21	17	17	15	15	17
made	34	20	17	23	24	20	22
keep	39	50	48	43	43	53	47
N	59	149	121	35	178	96	638

Source: BKL Study 2019, 2020 – Employer survey.

It is also important to note how the periods for which employers planned their actions changed. While in autumn 2019, on average, action plans were made for two years, during the pandemic, the period was shortened to eighteen months. Action plans were shortened most, to the period between 1 year or even 10 months, among companies from sectors like construction & transport, specialist services, trade, accommodation, and catering. In the case of companies operating in health care & welfare only, plans were shortened only slightly, by approximately 1 month. Just like with action plan development figures, the change in the average planning perspective confirms the focus on the near future in the case of companies most affected by the pandemic, suggesting that this was a fairly universal phenomenon. These changes illustrate the common mechanism of "short-term distortion", consisting in giving preference to "here and now" solutions in situations of crisis, uncertainty, and threat (Hardcopf, Gonçalves, Linderman and Bendoly, 2017).

To continue the analysis, changes in companies' activities related to human capital management should be examined to determine whether or not they were affected by the unusual market situation observed during the pandemic. First of all, let us see how medium-sized and large companies changed their approach with regard to measuring HR effectiveness (Table 4).

Table 4: Changes in measuring HR effectiveness in medium-sized and large companies from various sectors (%; N)

change in measuring HR effectiveness	Construction & transport	Education	Trade, accommodation, catering	Health care & welfare	Industry & mining	Specialist services	Total
still do not measure	15	2	9	3	7	4	6
stopped measuring	10	6	10	8	15	14	11
started measuring	20	19	10	14	14	19	16
still measure	55	73	71	76	65	64	68
N	60	157	126	37	197	102	679

Source: BKL Study 2019, 2020 – Employer survey.

Overall, it can be seen that **as regards the evaluation of effectiveness of human resource management, the behaviours of medium-sized and large companies did not change fundamentally during the pandemic and more than two-thirds of entities continued to evaluate effectiveness (68%). Interestingly, at that time, more companies initiated such evaluations than gave them up (16% vs 11%).** Differences between the sectors are small, but it can be seen that in the case of construction & transport companies and the specialist services sector, effectiveness was analysed slightly more frequently than in general (20% and 19% respectively). On the other hand, industrial and mining companies were more likely than the total of companies to give up such evaluations (15%).

With respect to changes in the use of the particular HR tools, it should be pointed out that 22% of medium-sized and large companies introduced plans to replace the employees who had left, while 18% of entities introduced job descriptions and employment plans. At the same time, 25% of companies resigned from job descriptions, while another 25% of entities resigned from a remuneration system that takes account of hierarchy.

Another aspect of HR activities is the recruitment budget. Also in this respect, the changes that took place during the pandemic are only minor (Table 5). However, a majority of medium-sized and large companies that had not had such budgets before did not develop them during the pandemic (57%). Only 18% maintained such budgets, of which, paradoxically, the majority were in the most affected sectors, i.e., trade, hotel, and catering. During the

pandemic, the recruitment budget was developed by a majority of medium-sized and large companies from the specialist services sector (21%), and the industry & mining sector (19%). The budget was liquidated by most companies in the sectors of trade, hotel, and catering (19%), and health care & welfare (17%).

Table 5: Change regarding the recruitment budget in medium-sized and large companies from various sectors (%; N)

change regarding the recruitment budget	Construction & transport	Education	Trade, accommodation, catering	Health care & welfare	Industry & mining	Specialist services	Total
still do not have	63	72	44	54	56	49	57
liquidated	11	9	19	17	5	19	12
made	9	9	5	17	19	21	13
still have	18	10	32	11	20	12	18
N	57	152	124	35	183	97	648

Source: BKL Study 2019, 2020 – Employer survey.

Naturally, an organisation's potential consists not only of strategic plans and management tools, but also of organisational culture, i.e., norms, values, and habits shared by the organisation's members, which make employees of a given enterprise behave in a specific way.

According to the model of competitive values by Kim Cameron and Robert Quinn (2011), which we use in the BKL as part of the diagnosis, every organisational culture can be described in terms of two separate aspects of values: flexibility-control, and internal orientation-external orientation. By superimposing these dimensions on each other, we can differentiate between four types of organisational cultures: the clan culture, the adhocracy culture, the hierarchy culture, and the market culture. As assumed in the model, values representing culture are competitive towards each other, which means that it is impossible for an enterprise to have a clan culture and a market culture, or an adhocracy culture and a hierarchy culture at the same time.

In the BKL Study, organisational culture is diagnosed based on a question in which respondents assign importance (from 1 to 4) to statements determining work in their companies or institutions:

- Our company/institution resembles one **big family** and its management takes care of the employees (clan culture);
- Our company/institution is **energetic and entrepreneurial**; its management is innovative and encourages taking initiative and risk (adhocracy culture);
- Our company/institution is **mainly result-oriented** and focused on effective task completion, while the leaders are demanding task-makers (market culture);
- Our company/institution is strictly organised and **governed by formal procedures**; its leaders focus on efficient organisation and control (hierarchy culture).

In this edition of the study, in addition to diagnosing the cultures characteristic of Polish organisations, it was also possible to cover their dynamics. The results allow us to determine whether change occurred in the organisational culture of enterprises, and – if so – what the direction of the transformation was. This is presented in Table 6.

Table 6: Changes in the organisational culture in medium-sized and large companies from various sectors (%; N)

organisational culture	Construction & transport	Education	Trade, accommodation, catering	Health care & welfare	Industry & mining	Specialist services	Total
pure clan	10	34	21	13	13	25	21
pure adhocracy	20	6	13	3	15	12	12
pure market	14	3	20	3	19	8	13
pure hierarchy	X	10	X	13	2	5	4
transformation into clan	31	17	14	22	9	23	17
transformation into adhocracy	12	8	7	13	22	11	13
transformation into market	6	12	18	16	16	7	13
transformation into hierarchy	8	11	7	19	4	8	8
N	51	121	105	32	165	83	557

Source: BKL Study 2019, 2020 – Employer survey.

Previously, clan culture was predominant in Polish medium-sized and large companies. As we can see, this form of organisation has remained most common: companies have kept this form of organisation (21%), or transformed into clan cultures from other forms (17%).

The transformation can be interpreted in the context of behaviours characteristic of systems facing uncertainty and threat. For organisations and individuals alike, the sense of threat leads to rigid reactions and the return to behavioural patterns that are familiar to companies and persons who work in them, and perceived as safe (known as the threat rigidity effect; Staw et al., 1981; Baumeister and Leary, 1995). Clan culture, which is based on stable relationships and paternalistic ties, provides a sense of safety. However, the question how these transformations will affect long-term innovation indicators remains open.

Despite a certain stability with regard to prevailing organisational cultures, their visible growth rate in the face of the pandemic is interesting, as indicated by respondents: over the year, a half of the companies changed the dominant pattern of their actions. As regards cultural transformation, particular attention should be paid to the diversified adaptation strategies of the sectors: while in the case of construction & transport, health care, education, and specialist services it was the clan culture that became the target culture for most companies, in the case of trade, accommodation, and catering it was the market culture, and in the case of industry & mining, the adhocracy culture.

Factors determining companies' resilience, fragility, and antifragility with respect to innovation

One of the objectives of this chapter is to diagnose the degree to which medium-sized and large companies coped with adapting to the new reality and developing their activities during the pandemic. The measure of such development can be information whether, during that time, companies managed to introduce innovation or had to give it up.

To answer this question, we compared the answers of representatives of the same companies regarding innovations introduced in 2018 and in 2020[11]. The comparison made it possible to identify four groups of companies, depending on their innovative activities: **resilient companies**, introducing innovations both before and during the pandemic;

[11] In the autumn 2019 edition of the employer survey', companies were asked about the changes taking place in the previous calendar year, i.e., 2018. This was related to the formal procedures determining the recording of budget items (profits, training, R&D and other budgets). In the study conducted in autumn 2020, i.e. during the pandemic, it was decided to ask about the changes taking place during the current year in order to see the impact of the pandemic on the labour market. Hence, the comparison of innovations implemented in 2018 and 2020.

antifragile companies[12] strengthened by the crisis i.e., ones that had not implemented innovations before the pandemic but did so during; **fragile companies**, which had previously introduced innovations but stopped during the pandemic; and **stagnant companies**, which did not introduce innovations either before or during the pandemic. Then, using modelling with the use of logistic regression, it was determined what factors related to companies' management and organisational culture contributed to the fact that some managed to resist the pandemic and introduce innovative solutions or products, while others withdrew from innovation or remained in innovative stagnation.

The advantage of logistic regression is a synthetic approach to the individual impact of various factors on a dependent variable: in this case, variable determining whether or not a given medium-sized or large company introduced innovations. For example, by investigating two companies, one of which did not have an action plan in 2019 but developed one in 2020, while the other one still did not have an action plan in 2020, it can be determined how introducing the plan affected the probability of implementing innovations, while keeping other factors at the same level. A given factor's statistically significant net impact means that it may have a positive or negative impact on the probability of innovative activities compared to other independent variables included in the model.

A certain limitation, which does not result from the analysis itself, but from the nature of the Polish labour market, is the small number of companies for which it was possible to conduct modelling. This is the consequence of the fact that relatively few Polish companies undertake innovative activities: in 2018, this was recorded by 27% of companies participating in the BKL Study, in 2019 – by 24%, and in 2020 – by 25%. Therefore, the results of the analyses should be seen as an attempt of describing the phenomenon rather than its forecast. Although they seem to be accurate, the relatively small numbers did not allow us to regard them as significant.

Analyses based on the logistic regression model forecast two different situations. The first model (Table A1 in the Annex) shows what contributes to antifragility in a crisis situation, i.e., change

[12] Antifragility is a feature of systems in which their ability to develop because of stressors, shocks, instability, noise, errors, faults, attacks or failures increases. The concept was developed by Nassim Nicholas Taleb (2013) and presented in his book *Antifragile. Things That Gain From Disorder. As Taleb explains in his book, antifragility is fundamentally different from the concept of resilience (i.e. the ability to get out of failure) and robustness (i.e. the ability to resist failure).*

under which companies did not introduce innovations in 2018, but implemented them in 2020. The other model (Table A2 in the Annex) presents the opposite scenario, i.e., what contributes to fragility of companies that introduced innovations in 2018 but in 2020 did not[13]. In addition, the analysis made it possible to predict how a given factor affects antifragility of companies (introduction of innovations), and how it affects their fragility (discontinuation of innovations).

In 2020, innovation was introduced by 21% of medium-sized and large companies that had not recorded this type of activity in 2018. When examining the factors that have a statistically significant impact on the probability of such situation (marked in blue in the table presented in the Annex), **the most important was the stability of hierarchical organisational culture.** Companies that were and remained hierarchical were more likely to introduce innovations than companies based on clan culture (the model estimated that 42% of them remained resilient). **Another important factor was the presence, or rather maintaining, an action plan.** 28% of entities with action plans introduced innovations in 2020, while in the case of companies that did not have an action plan in either period the figure was 9%. **The last important factor, this time, one reducing the likelihood of innovation, was the presence or absence of a development department.** Companies that resigned from the development department during the pandemic (in autumn 2019 and autumn 2020) demonstrated a lower probability of innovation: 13% compared to entities that never had one, compared to the total of 21% of companies.

[13] Both models are statistically significant, as evidenced by the group test of model coefficients based on chi-square (both models $p < 0.01$). The pseudo R-square measures also show a relatively good match between both models (the first model of Cox and Snell 's R-square = 0.225, Nagelkerke 's R-square = 0.340; the other model of Cox and Snell 's R-square = 0.635, Nagelkerke 's R-square = 0.854).
However, in both cases, a certain limitation of the modelling used was the small numbers resulting from the specific situation of Polish companies. The panel included 652 companies but with overall low innovation indicators, only 341 observations were incorporated in the first model and 96 in the other one. This affects the significance of linear regression coefficients from which we can draw conclusions only in few cases on the population of all medium-sized and large companies. Most variables used in the model remain insignificant, although the results seem to be accurate based on existing observations.
Small sample sized determined limitation of innovation only to cases when companies declared the introduction of any innovations. An attempt to expand the innovation indicator by the information about having an ,R&D department and plans for the future implementation of innovations resulted in a drastic reduction of cases to a dozen or so such companies, which made it impossible to do a regression model.

Fragility, i.e., giving up innovation in 2020 was a more frequent phenomenon. It generally affected 62% of medium-sized and large companies which declared that in 2018 they had implemented innovations. Considering the variables used in the model, **fragility was significantly influenced by the presence or absence of an action plan and recruitment budget. Having an action strategy had strongest influence.** 99% of medium-sized and large companies that gave up action strategies between autumn 2019 and 2020 withdrew from innovation. In comparison, among companies that had an action strategy, innovation was given up by 51%. Similarly, companies that never had an action plan were more likely to discontinue innovations than entities that continued to have action plans (96% vs 51%). The likelihood of innovation decrease was lower in medium-sized and large companies that developed a recruitment budget in 2020 than in those that had a recruitment budget all the time. Only 44% of the former ceased to be innovative.

With regard to innovation, the type of business activity affected fragility and antifragility in a rather specific way. It was statistically significant only for the sectors of trade, hotel, catering and support services, with the construction & transport sectors being the reference category. Medium-sized and large companies pursuing commercial, hotel, and catering activity were less likely to introduce innovations than in the pre-pandemic period (12% vs 21% of total companies). At the same time, these companies were less likely to give up innovation (43% vs 62% of total companies). This apparent inconsistency probably results from the fact that trade, hotel, and catering companies are relatively less innovative when compared to the total: 72% did not implement any innovations in either 2018 or 2020 (as compared to 63% of all medium-sized and large companies). In the said period, they introduced innovations less frequently than other entities (10% vs 17% of total companies), but also gave them up less frequently (8% vs 13% of total companies). Therefore, it can be said that during the pandemic, medium-sized and large companies from the sectors of trade, hotel, and catering in a way “curled up” in terms of innovation in response to the crisis that affected them most.

Summary

In the depths of the ocean, two young fish swim along unhurriedly. Suddenly, an older, experienced fish swims up to them and says: Hi, boys, how is the water? For some time, the two young fish keep on swimming in silence, then one of them turns round and asks: Dude, what is water?

The culture of an organisation is like water. Invisible, odourless, yet ubiquitous and defining the range of moves that the employees and managers can make. As it turns out, it is also decisive in terms of how the organisation will react to a crisis.

Based on the analyses presented in this chapter, we could risk saying that there exists a certain configuration of standards, values, and long-term planning tools, which, to some extent, makes companies resilient to crises and allows them to remain innovative. Particularly resilient, or even antifragile in this respect, are companies with a long-term plan for action and employees' development, and those in which the executives focus on efficient organisation and control of procedures implementation.

For many readers, this conclusion may be surprising as we often associate innovation with creativity and originality of ideas, flexibility, and flatness of organisational structures. In fact, creativity is only one, frequently the easier[14] component of innovative processes. Innovation is the result of two types of enterprises' activities, subject to constant tension, exploitation, and exploration. American sociologist Simon March perceived exploitation and exploration as two modes of organisational activities necessary for effective learning and development of new organisational solutions (1991). He claims that exploration is related to differentiation, risk-taking, experimenting, and discovering, while exploitation is related to process improvement, effectiveness, implementation, and execution.

Since the inherent part of innovation is the need to both create new ideas and implement them effectively, innovation is very often dependent on the balance between exploration and exploitation, which, although in opposition, are needed for the successful generation and implementation of ideas. And the second element, exploitation, is fostered by the culture of hierarchy, which is a key factor of companies' competitive advantage, allowing them to build antifragility during crises. This surprising set of features i.e., hierarchical organisational culture combined with high-quality strategic planning and personnel management tools is characteristic of companies resilient to crisis.

When analysing companies' reactions to the crisis caused by the pandemic, we can notice certain patterns which, however, should not be surprising. Medium-sized and large companies,

[14] Not without reason, did Thomas Edison say many times that success consists of one percent inspiration and ninety-nine percent perspiration.

from which the information collected in this edition was obtained, definitely experienced the effects of the pandemic, which mostly affected the sectors of trade, hotel, and catering, where the decrease in orders and the related reduction in production were usually recorded. Therefore, when planning help for the economy, it is worth paying particular attention to this sector as the other sectors were affected by the pandemic to a lesser extent.

In addition, the pandemic resulted in changes in companies' strategies and human capital management, though it could be expected that the impact would be stronger. However, when assessing the changes in the strategic and managerial area, it should be borne in mind that, in general, this is not a strong point of Polish companies, as shown by the analyses carried out in the previous years (Prokopowicz et al., 2017). In the age of crisis, medium-sized and large companies paid slightly more attention to action plans: a half of them maintained such strategies, while one fifth developed action plans only during the pandemic. It was also possible to notice that such plans were, obviously, reduced in the period of greater uncertainty of the economic situation.

Annex

Table A1: Logistic regression model forecasting the opportunities of changing the fact that medium-sized and large companies which were not innovative in 2018 introduced innovations in 2020 (N = 341).

Variables	B	Significance	Exp(B)	Percentage
Change in having the development department (ref: did not have and do not have)	x	0.02	x	21
(1 – gave up)	**–1,864**	**0.021**	**0.155**	**13**
(2 – formed)	0,951	0,091	2,587	29
(3 – maintained)	–0.19	0,761	0,827	26
Change in having the development budget (ref: did not have and do not have)	x	0.7	x	19
(1 – gave up)	–0,126	0,833	0,882	15
(2 – formed)	–0,097	0,857	0,908	29
(3 – maintained)	0,541	0,349	1,718	26
Change in the competence assessment index (ref: decrease)	x	0.94	x	17
(1 – the same level)	–0,098	0,825	0,906	22
(2 – increase)	–0,185	0,726	0,831	22
Change in having the development plan (ref: did not have and do not have)	x	0,015	x	9
(1 – gave up)	0,468	0,524	1,596	18
(2 – developed)	0,935	0,121	2,546	22
(3 – maintained)	**1,584**	**0,006**	**4,876**	**28**
Change in the use of HR tools (ref: still do not use)	x	0,066	x	7
(1 – stopped using)	–0,894	0,367	0,409	5
(2 – started using)	0.58	0,487	1,786	23
(3 – still use)	0,923	0,216	2,517	24
Change in having the recruitment budget (ref: did not have and do not have)	x	0,159	x	21
(1 – liquidated)	–0,335	0,58	0,716	14
(2 – made)	0,634	0,232	1,885	36
(3 – have it all the time)	–0,869	0,175	0,419	19
Change in the organisational culture (ref: pure clan)	x	0,047	x	17
(1 – pure adhocracy)	–0,555	0,368	0,574	21
(2 – pure market)	0.4	0,468	1,492	27
(3 – pure hierarchy)	**2,216**	**0,012**	**9,175**	**42**

Variables	B	Significance	Exp(B)	Percentage
(4 – transformation into a clan)	0,523	0,307	1,688	26
(5 – transformation into an adhocracy)	0,275	0,637	1,317	30
(6 – transformation into a market)	–0.82	0,265	0.44	11
(7 – transformation into a hierarchy)	–0,221	0,731	0,802	14
Did they feel the effects of the pandemic (1 – yes)	0,502	0,174	1,652	21
Did they use the Anti-Crisis Shield (1 – yes)	–0.49	0,156	0,613	19
Sector in which a company operates (ref: Construction & transport)	x	0,017	x	18
(1 – Education)	–0.41	0.49	0,664	23
(2 – Trade, accommodation, catering)	**–1,309**	**0,044**	**0.27**	**12**
(3 – Health care & welfare)	–1,425	0,113	0,241	14
(4 – Industry & mining)	0.42	0,451	1,522	28
(5 – Specialist services)	–0,796	0,198	0,451	21
Constant	–2,754	0.01	0,064	**21**

Note: Statistically significant regression coefficients are indicated in bold.

Source: BKL Study 2019, 2020 – Employer survey.

Table A2: Logistic regression model forecasting the opportunities of changing the fact that medium-sized and large companies which were innovative in 2018 gave up innovations in 2020 (N = 96).

Variables	B	Significance	Exp(B)	Percentage
Change in having the development department (ref: maintained)	x	0.293	x	57
(1 – did not have and do not have)	6,661	0,112	781,008	62
(2 – gave up)	8,633	0,056	5,616,623	73
(3 – formed)	7,249	0,126	1,406,239	55
Change in having the development budget (ref: maintained)	x	0,213	x	62
(1 – did not have and do not have)	-1,074	0,673	0,342	71
(2 – gave up)	1,035	0,744	2,816	71
(3 – made)	-7,711	0,072	0	41
Change in the competence assessment index (increase)	x	0,303	x	71
(1 – decrease)	-4,529	0,324	0,011	65
(2 – the same level)	-0,602	0,866	0,548	57
Change in the action plan (ref: still use)	x	0.04	x	51
(1 – did not have and do not have)	**7,835**	**0,029**	**2,526,671**	**96**
(2 – gave up)	**8,167**	**0,042**	**3,523.66**	**99**
(3 – developed)	-2,699	0,385	0,067	48
Change in having the recruitment budget (ref: have it all the time)	x	0,286	x	67
(1 – did not have and do not have)	-3,652	0,186	0,026	66
(2 – liquidated)	-2,783	0.19	0,062	34
(3 – made)	**-3,504**	**0.07**	**0.03**	**44**
Change in the organisational culture (ref: pure clan)	x	0,679	x	67
(1 – pure adhocracy)	-10.62	0,135	0	53
(2 – pure market)	-8,154	0,276	0	93
(3 – pure hierarchy)	-10,443	0,149	0	12
(4 – transformation into a clan)	-12,311	0.1	0	31
(5 – transformation into an adhocracy)	-9,015	0,218	0	45
(6 – transformation into a market)	-7,301	0,275	0,001	71
(7 – transformation into a hierarchy)	-12,209	0,166	0	34
Did they feel the effects of the pandemic (0 – no)	-0,172	0,944	0,842	85
Did they use the Anti-Crisis Shield (0 – no)	-2,272	0.21	0,103	57

Variables	B	Significance	Exp(B)	Percentage
Sector in which a company operates (ref: Construction & transport)	x	0,172	x	71
(1 – Education)	-5.21	0,255	0,005	48
(2 – Trade, accommodation, catering)	**-11,791**	**0,017**	**0**	**43**
(3 – Health care & welfare)	-4,898	0,193	0,007	59
(4 – Industry & mining)	-2,575	0,415	0,076	76
(5 – Specialist services)	-2,953	0,417	0,052	62
Constant	15,142	0,098	3,766,487	62

Note: Statistically significant regression coefficients are indicated in bold.

Source: BKL Study 2019, 2020 – Employer survey.

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New strategies for new times? Investments of medium-sized and large enterprises in employees' competence during the COVID-19 pandemic

Katarzyna Lisek
Barbara Worek

Introduction

Situation of enterprises during the pandemic: the context of investing in employees' competence development

As demonstrated by numerous analyses, including the results of the previous editions of the BKL Study, **entrepreneurs' investments in the development of employees' competence bring measurable benefits to both companies and employees participating in the supported activities** (Cohen and Soto, 2007; Crook et al., 2011; CEDEFOP, 2013, among other publications). On the one hand, they become a catalyst for changes on the way to more open and innovative business activity. On the other hand, they represent the response to the demand for new competences, emerging with the rapid development of technology, and become necessary for the functioning in the knowledge-based economy.

The year 2020, along with the challenges brought by the COVID-19 pandemic, created a new context for the activity of enterprises, including strengthening the competence of employee teams and methods of dealing with competence gaps.

The difficult economic situation was not conducive to undertaking development activities. Some employers were severely affected by the pandemic and suffered financial losses. In 2020, the overall financial results of Polish enterprises were lower than those recorded the year before, especially in the hotel, catering, transport, mining, and processing sectors (Statistics Poland, 2021). The uncertain financial situation resulted in lower willingness to invest: in 2020, enterprises' capital expenditures were lower than the year before (Statistics Poland, 2021).

Undertaking activities to support competence development was also impeded by the change in the organisation of work. Many companies switched to remote or hybrid work in certain areas of their activity. Adapting the organisational structure to the new reality required additional effort from entrepreneurs, including the engagement of additional resources, both human and financial. Therefore, it could be assumed that such redirection of entrepreneurs' attention to new challenges would have an adverse effect on the interest in additional development activities.

It should also be noted that **certain competence-developing activities stopped being used in the new pandemic reality.** This applied to both onsite training and courses, and individual forms of preparation for specific professional tasks, such as job instruction and coaching. Restrictions on participation also affected industry events such as seminars, conferences, and workshops. These changes resulted in a crisis in the training sector, for which adapting to the new conditions was a real challenge (PIFS, 2020).

Despite the difficult economic situation, described above, and the numerous restrictions that may have a negative impact on activities related to the development of employees' competence, it can be expected that, for some companies, the changes caused by the COVID-19 pandemic will have the opposite effect and will become a driving force for even more intensive investment in the development of employees' competence. Employers who transferred certain business processes to the online environment needed employees able to function in that reality. On the one hand, digital competence of the existing employees, whose original tasks were based on other methods, needed to be expanded, while on the other hand, new needs appeared, related e.g., to operation of network infrastructure, management of cloud solutions, and data protection. Investing in such competences is becoming important for employers, especially because some of them believe that the new system of work will not disappear after the pandemic: the three-quarters of economic

operations presented in the SAP report (2021) make us expect that remote work will be continued to some extent even after the pandemic.

Another context for the emergence of new competence needs in enterprises are changes in the nature of enterprises' activity. Some companies, wishing to find their place in the new conditions, had to try to change their existing products and services or the way they were offered so as to adapt to the new market needs. A new profile of activity usually involves the need to invest in a new type of competence, either by developing internal resources or through new hires.

Limited possibilities of participating in traditional forms of competence building resulted in intensive growth of remote development activities. The number of training events and courses that employees can attend from their homes or offices is growing. The training offer is also extended by the possibilities provided by new technologies, such as virtual reality (MamBiznes, 2020).

The new reality brought by the COVID-19 pandemic makes us ask the following questions: **Did the situation in which Polish medium-sized and large enterprises found themselves affect their strategies of supporting the development of employees' competence? What are the competence development methods in which entrepreneurs invest? How is enterprises' development rate related to investment in competence? Do companies plan to invest in employees' competence in the future?**

Factors relevant to enterprises investing in employees' development

Before attempting to answer the above questions, one needs to ask **what features can differentiate enterprises' actions implemented to develop employees' competence.** In this case, the intuitive choice is company size and sector. As demonstrated by the conclusions from the previous editions of the BKL Study, a company's development rate also matters when it comes to development of its employees' competence.
In the consecutive editions of the study, companies identified as those with the **highest stage of development** were those that met three concurrent conditions: **they were looking for new employees in the previous year, they introduced at least one innovation,** and: **they were**

planning to introduce innovation in the following year. Failure to meet one of the conditions put the company in the category of enterprises with moderate development, while failure to meet any of the conditions – in the category of stagnant companies (Diagram 1).

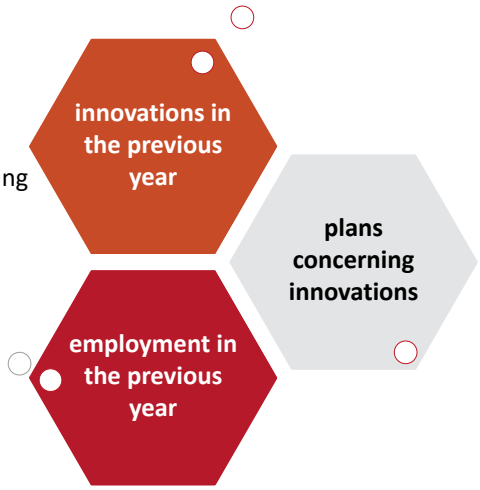
Diagram 1: Components of company development index

Company development index
The index which covers recruitment and innovation activity of businesses takes three values: strong development – moderate development – stagnation.

Strong development means that:
1. the company implemented innovations in the previous year (innovative products/services or other forms of innovation); and
2. the company plans to implement innovations in the following year; and
3. the company recruited employees in the previous year.

Stagnation:
1. the company DID NOT implement ANY innovations in the previous year; and
2. the company IS NOT planning to implement innovations in the following year; and
3. the company DID NOT recruit employees in the previous

Moderate development:
1. other companies that met one or two conditions (introduced innovations, are planning innovations or recruited employees).



Analyses of the enterprise's development level on its activities related to supporting employees' competence development during the COVID-19 pandemic adopt two approaches to this phenomenon, static and dynamic (Diagram 2).

Diagram 2: Static and dynamic approaches to the level of enterprise development

approach to the level of enterprise development	static	dynamic
question to which the given approach corresponds	What was the development stage of the enterprise in 2019?	How did the company's development stage change between 2019 and 2020?
categories in which the enterprise may be included	• strong development • stagnation • moderate development	• increase in the level of development • same level • decrease in the level of development

The static approach analysed the significance of the level of development with which the enterprise entered the pandemic for supporting employees' competence. For this purpose, information about the development stage of the enterprise (stagnation, moderate development, or strong development) from 2019 was used.

The dynamic approach indicated how the change in the level of enterprise development between 2019 and 2020 is associated with modifications in the enterprise's approach to developing its employees' competence. In this case, the indicator of the change in the level of enterprise development was used. Companies that were marked as those whose level of development increased, between 2019 and 2020 changed their development stage to higher (e.g., from moderate development to strong development). Companies whose level of development decreased moved to the lower level of development at that time (e.g., from moderate development to stagnation).

In 2020, the overall percentage of companies that were at particular stages of development did not change significantly. Fewer than 60% of companies were in the stagnation phase, fewer than 40% of companies were in the moderate development phase, while only about 5% were in the strong development phase (Figure 1). However, this does not mean that the situation of individual companies did not change.

Figure 1: Percentage of companies at particular stages of development in 2019 and 2020 (static approach) (%; N = 679)

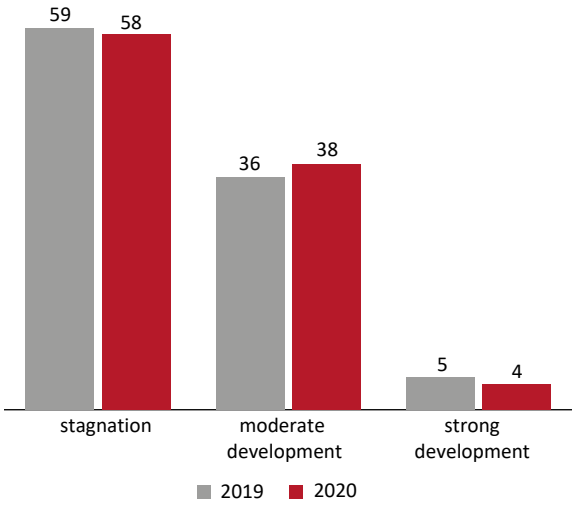
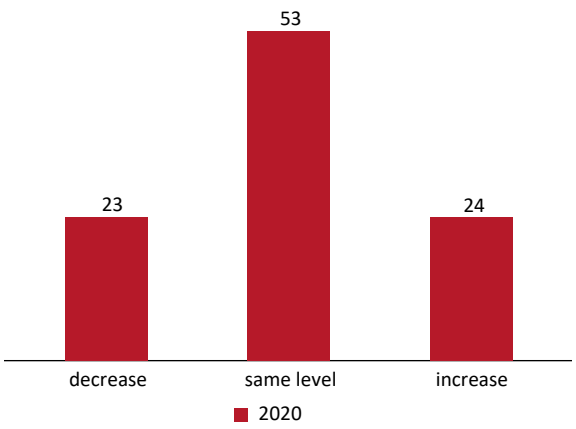


Figure 2: Percentage of companies whose development rate changed in 2020 (dynamic approach) (%; N = 679)



Source: BKL Study 2019, 2020 – Employer survey.

In 2020, 23% of companies recorded a decrease in the level of development (Figure 2). This applied to slightly more than a half of the enterprises that in 2019 were in the moderate phase and almost all (92%) enterprises that were in the strong development phase. This decrease mainly resulted from resignation from looking for new employees: this applies to 58% of companies whose development rate decreased in 2020. Among these companies, 44% gave up implementing innovations and a half gave up planning implementation for the following year (Table 1).

At the same time, **an increase in the level of development in 2020 applied to 24% of companies** (Figure 2). More dynamic development was recorded by 37% of the companies that were in the stagnation phase the year before and 5% of those that were in the moderate phase. This growth is mainly due to an optimistic outlook for the future. As many as 77% of the enterprises that in 2020 improved their position in the development rate index are those that started planning implementation of innovation in the following year. Among companies that increased their development rate, 55% started implementing innovations, and 36% started looking for employees (Table 1).

Table 1. Changes in the indices that are components of the enterprise development stage index against change in the development rate (%; N)

		decrease in the development rate		same level of development		increase in the development rate	
		N	%	N	%	N	%
looking for new employees	gave up	92	58	14	4	0	0
	still do not look for	61	38	310	86	97	60
	still look for	5	3	22	6	7	5
	started looking for	0	0	14	4	57	36
implementation of innovations last year	gave up	69	44	17	5	0	0
	still do not implement	79	50	274	77	70	45
	still implement	11	7	41	11	1	1
	started implementing	0	0	26	7	86	55
implementation of innovations in the next year	gave up	52	50	10	4	0	0
	still do not plan	43	42	191	74	20	18
	still plan	9	8	44	17	5	4
	started planning	0	0	12	5	83	77

Source: BKL Study 2019, 2020 – Employer survey.

Supporting the development of employees' competence in medium-sized and large enterprises

The time of the pandemic set new challenges for investing in employees' development

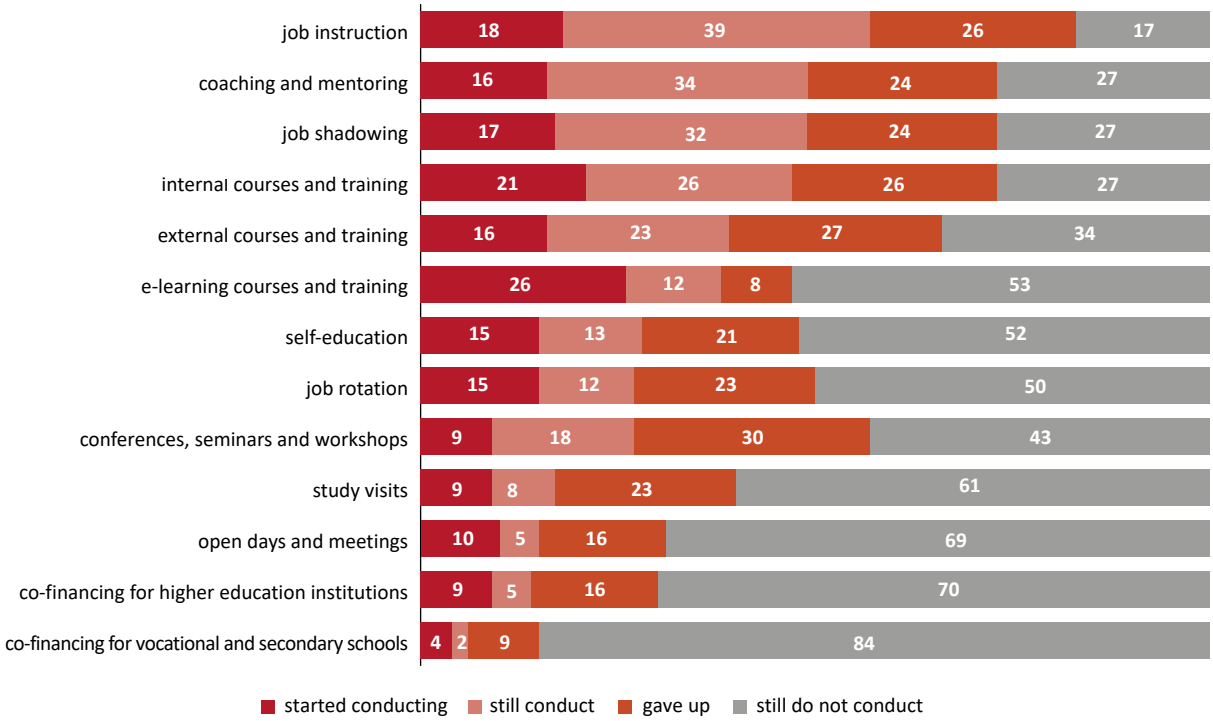
Despite the difficult economic situation caused by the COVID-19 pandemic, **medium-sized and large enterprises did not withdraw from activities supporting the development of employees' competence**. At least one development activity was undertaken by 91% of medium-sized and large enterprises, a result similar to that achieved the year before. Besides, companies that had not planned such activities in the previous year also invested in employees' development; 87% of enterprises that declared they did not have development plans in 2019 carried out at least one development activity in 2020. In comparison to 2019, in the pandemic year 6% of enterprises gave up any activity in this area, but at that time another 6% of enterprises started it.

However, due to difficult economic conditions, the scale of the activities implemented was limited. Almost four out of five medium-sized and large companies withdrew from investing in at least one form of employees' development which was implemented the year before. The pandemic situation contributed to the decrease in the number of persons taking part in courses and training organised and financed by entrepreneurs. While in 2019 the median of employees participating in training in medium-sized and large companies was 30 persons, in 2020, it dropped to 20. The number of persons taking part in training in a given company decreased for 60% of companies, and an increase in the number of employees participating in training was recorded by 35% of enterprises. The budget that enterprises allocated for courses and training was also reduced. In 2019, the median annual expenditure for this purpose was within the range of PLN 8,000–10,000 while in 2020 it decreased to PLN 5,000–8,000.

The percentage of enterprises implementing individual forms of support for the development of employees' competence also decreased (Figure 3). As could be expected, greatest decrease in interest was recorded in the case of competence-enhancing tools that require an in-person

meeting of the participants. Almost every third employer resigned from supporting employees' participation in conferences, workshops, and seminars, though this form of support was implemented the year before. Study visits and external training also became less popular.

Figure 3: Methods of supporting the development of employees' competence implemented by medium-sized and large entrepreneurs in 2020 compared to the previous year (%; N_{min} = 671)



Source: BKL Study 2019, 2020 – employer survey.

At the same time, **e-learning courses were the form of competence development support that attracted most interest of medium-sized and large companies**. This can be seen as a natural consequence of the fact that many enterprises switched to remote or hybrid work (Figure 3). While before the COVID-19 pandemic only every fifth entrepreneur invested in this type of tools, one year later, the percentage of companies interested in this form of competence development doubled and every fourth employer decided to support the development of competence of their employees in this way, although they did not do so the year before. It is worth noting that online training is the only form of employees' competence development whose popularity among entrepreneurs increased in 2020. However, this form of improving employees' competence is still not the most popular.

In 2020, job instruction (57%), coaching and mentoring (50%), and job shadowing[15] (49%) have remained the most popular methods of developing employees' competence among Polish entrepreneurs (Figure 3). The three tools, aimed at preparing the employee for specific professional tasks and focusing on the employee's individual development, were also the most popular methods of supporting competence development the year before. Although a significant portion of entrepreneurs gave up investing in them, they still remained in the top three.

Companies that were in strong development phase still supported the development of their employees' competence as the crisis hit (static approach)

In 2019, companies characterised by the highest level of development were also much more active in the area of supporting employees' competence when compared to other enterprises. One year later, although, for most of them, the level of development decreased, **these companies still remain the leaders when it comes to the variety of activities implemented to improve competence.**

A vast majority of enterprises (92%) which were characterised by the highest level of development in 2019 organised courses and training for their employees in 2020. Only 7% of companies from this group gave up this form of development altogether. In 2020, more than a half of enterprises of this type continued investing in external training, also used in 2019, while 64% declared they continued training internally (Figure 4).

The situation looks similar in the case of development activities outside the workplace. Companies strongly developed in 2019, visible leaders in these forms of development at that time, despite a large decrease, remained leaders also a year later. Investment in development activities outside the workplace was implemented by 59% of such enterprises, a vast majority being companies that continued the activity from the previous year. One third of enterprises from this group gave up investing in such forms of development. Companies were most likely to withdraw from funding higher education (45%), supporting participation in conferences, seminars and workshops (42%), and study visits (38%) (Figure 4).

[15] Direct observation of another employee 's work.

Figure 4: 2020 change in employees' development support methods used by enterprises characterised by different levels of development in the previous year (%; N_{min} = 671)

Source: BKL Study 2019, 2020 – employer survey.

Companies characterised by the highest level of development in 2019 were also most likely to support employees' development in the workplace in 2020: such activities were carried out by 82% of enterprises from this group. In relation to the previous year, the highest percentage continued implementing internal coaching and mentoring for employees, job shadowing, and job instruction(Figure 4).

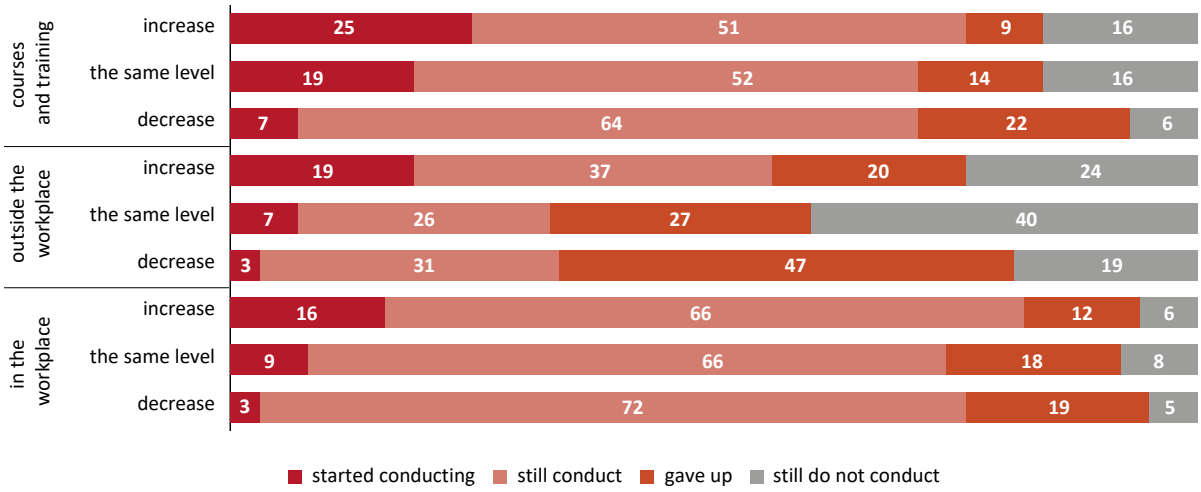
The strong position of companies characterised by a high level of development in 2019 among the leaders of supporting employees' development in the following year may attest to the stability they managed to build, which could provide a certain level of resilience to crises. For these companies, it was easier to continue the activities from before the pandemic rather than start investing in new forms of development.

Companies that entered a higher development phase in the previous year are more likely to invest in new ways of supporting employees' competence development (dynamic approach)

In comparison to the previous year, companies that entered a higher development phase in 2020 invested in more diversified forms of employees' competence development than others. This may reflect their growing competence needs and be indicative of the ways in which they deal with potential competence gaps.

Companies whose level of development increased were more likely than others to start investing in various forms of training which they did not use in 2019. In 2020, more than a quarter started conducting courses and training for their employees, while 9% resigned from this type of competence support (in comparison to 22% resigning among those whose development slowed down) (Figure 5). Companies that recorded a leap to a higher development phase invested in all types of training. Almost a third started conducting online courses. More than 30% started conducting internal, and 23% external courses. Compared to companies whose development slowed down, they were less likely to give up any form of training that they conducted in the past.

Figure 5: Methods of supporting the development of employees' competence used in 2020 by enterprises with different development rates (%; N_{min} = 671)



Source: BKL Study 2019, 2020 – employer survey.

Enterprises whose level of development increased were less likely to give up competence development activities carried out outside the workplace. Among them, every fifth entrepreneur gave up such activities in 2020, but a similar number undertook them. In the case of companies whose level of development decreased, almost a half gave up supporting this type of activity (Figure 5). Differences between these groups are easiest to capture when examining support for participation in conferences, seminars, and workshops. Among enterprises whose level of development increased, such activities were started by 21% and given up by 22%, leaving the total number of enterprises implementing them at a similar level. Among enterprises whose development slowed down, only 4% initiated such activities, and as many as 47% gave them up.

When it comes to training forms implemented in the workplace, **companies that entered a higher development phase are again characterised by the highest percentage of entrepreneurs starting this type of activity** (Figure 5). Approximately 30% started supporting self-education in the workplace and job instruction, every fifth entrepreneur implemented coaching, job shadowing, and job rotation. In this group, lowest percentages of companies giving up this type of activity were also recorded.

Work mode change in particular sectors involves changes in employees' competence development support

Investments in employees' competence development using online tools intensified mainly among entrepreneurs from sectors where the majority of companies shifted to remote work. The percentage of enterprises that started offering e-learning courses to their employees in 2020 was highest in the sector of specialist services (35%), health care (32%), and education (31%). It should be added that, due to the nature of their work, these sectors more frequently than others chose remote forms of competence development also in 2019. Therefore, we can expect that the offer of this type of training was more available to them and, consequently, switching to remote employee training could have been easier than in sectors less active in this field.

Employers from sectors which, in the previous year, were willing to use development activities that required direct contact of a large group of employees had to give them up in 2020. More than a third of employers from the medical, service, and education sectors stopped supporting employees' participation in conferences, seminars, and workshops, although they provided such support the year before. 28% of entrepreneurs in the education sector and 23% in the service sector gave up study visits, while 28% of entrepreneurs in the education sector and 21% in the service sector gave up open days. These changes in the strategy of competence development may also result from switching to remote work in these sectors.

In companies representing most sectors, the most popular forms of supporting the development of employees' competence were those directly related to job tasks: job instruction, coaching, job shadowing, and internal training. The exception were employers from the education sector, which in 2020 invested mainly in e-learning and onsite training, both internal and external.

The education sector is also characterised by a relatively high percentage of employers who co-finance vocational and higher education of their employees. In 2020, a general decrease in this type of activity was observed: 20% of employers in the sector gave up co-financing higher education and 17% vocational education.

This trend also affected the sectors of construction & transport: 17% of entrepreneurs gave up co-financing higher education and 11% vocational education.

Enterprises' strategic approach to supporting employees' competence development

Despite the difficult pandemic situation, companies strengthen their strategic approach to the assessment and development of competence

Although 2020 was difficult for enterprises operating in many sectors of the economy, **activities aimed at including development of employees' competence in the company's strategy were continued.** In particular, this concerns the creation of positions and formation of departments dedicated to supporting employees' development, allocation of a budget for development activities, and systematic assessment of enterprises' competence needs.

In both 2019 and 2020, almost 30% of medium-sized and large enterprises declared that they had a separate department or position responsible for development of employees. In 2020, such positions or departments were created or formed by 14% of entrepreneurs, while almost as many (16%) gave them up. Furthermore, having a budget for development activities became more common. In 2019, 35% of companies declared they had such budgets, while in the following year, 42% (Figure 6).

Figure 6: Strategic approach to development of competence (having a development department and budget) in 2020 compared to the previous year (%; N_{min} = 655)

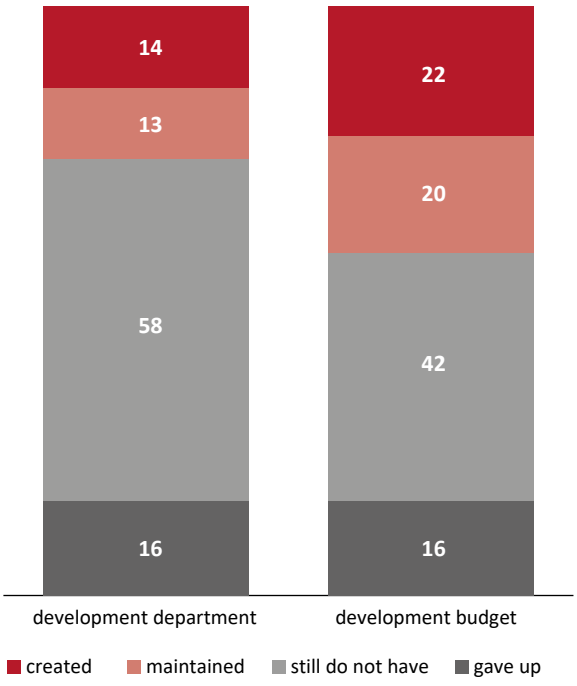
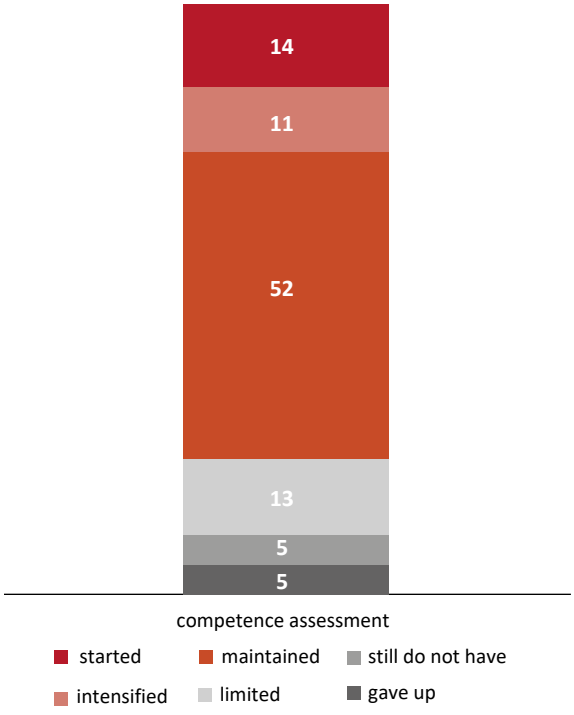


Figure 7: Carrying out competence assessment in 2020 compared to the previous year (%; N = 671)



Source: BKL Study 2019, 2020 – Employer survey.

Compared to the previous year, in 2020 a larger number of employers started assessing the competence needs of their companies. Just like in 2019, systematic assessment was carried out by one third of companies. Occasional assessment, usually initiated upon job rotation, was carried out by 55% of entrepreneurs, 8% more than in the previous year. Only 5% of entrepreneurs did not carry out such assessment in either 2019 or 2020. During that year, 18% of companies gave up or reduced competence needs assessment. Assessment was initiated or intensified in a quarter of enterprises (Figure 7).

The indicators' increase in this year, which was particularly difficult for the economy, may be proof that the value of having a strong competent team is being more clearly noticed by employers. New challenges also give rise to new competence needs that need to be addressed.

A strategic approach to competence development is particularly important for dynamically developing companies

In the case of large and medium-sized enterprises, development rate is associated not only with greater readiness to provide support for various forms of improving employees' competence but also with applying a strategic approach to development needs.

Companies that were strongly developing before the COVID-19 pandemic (static approach), in the times of crisis, were less likely than others to give up activities that included employees' development in the company's strategy. Besides, companies whose level of development increased in 2020 as compared to the previous year (dynamic approach), were more likely to start investing in this type of activity.

Highest percentage of companies with a development department present in 2020 is observed among those that were in the strong development phase the year before (43%). One third of these companies managed to maintain the previously existing development department, while one in ten established such departments in 2020 (Figure 8). In addition, the largest percentage of companies establishing development departments in the pandemic year is observed among companies whose level of development increased at that time (18%).

The situation is similar as regards allocating a budget for development activities. In 2020, such budgets were more likely to be found in companies that recorded strong development the year before (63%). However, it should be added that a half of these companies also had such budgets in 2019 and every fifth had to give them up (Figure 9). The largest number of companies that created development budgets in 2020 was observed among enterprises whose level of development was growing at that time (26%), while the highest percentage of companies that gave them up was recorded among companies whose development decreased (20%).

Figure 8: Change in having a development department among companies at different stages of development in 2019 (%; N = 670)

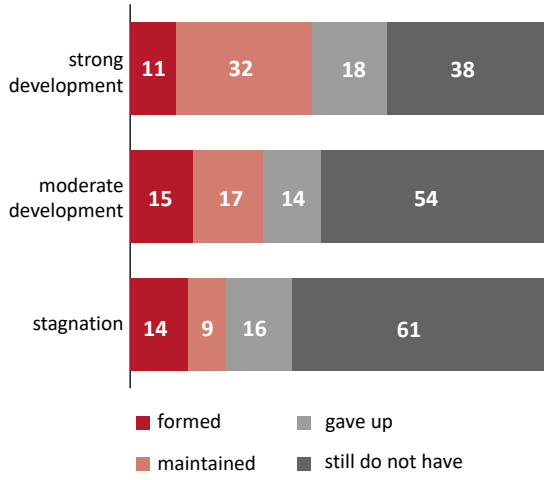
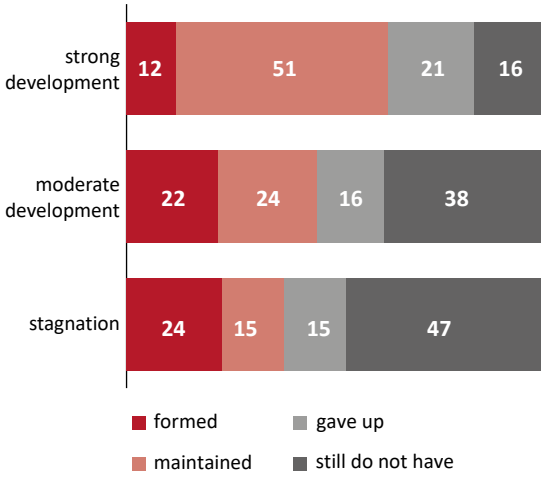


Figure 9: Change in having a development budget among companies at different stage of development in 2019 (%; N = 655)



Source: BKL Study 2019, 2020 – employer survey.

Enterprises whose level of development increased in 2020 also intensified activities related to the assessment of competence needs. Among these companies, almost one third launched or developed an assessment system. At the same time, 26% of companies whose level of development dropped limited such assessment or gave it up altogether.

Strategic approaches to planning investment in employees' development differ between the sectors

In 2020, the percentage of companies with a development department (42%) and a budget for development activities (60%) was highest in the sector of specialist services (Figure 10 and Figure 11). Every fifth company from this sector established such a department or created such a position over the last year, and only every tenth gave them up. Similarly, with respect to budget for development activities, one third of companies from the sector created one while only every tenth liquidated the budget they had. This is not surprising: in this context, the service sector was the leader even before the beginning of the COVID-19 pandemic.

The largest percentage of companies closing development departments (21%) and giving up budgets for development activities (22%) was recorded in the sectors of construction

& transport. In 2020, these were the sectors with the lowest percentage of companies with a development budget (35%).

Since 2019, the education sector has invariably been the sector characterised by the distinctly lowest percentage of entities with a development department (decrease to 10% in 2020 from 17% in 2019). It should be noted that the sector consists mainly of schools, whose organisational structure usually does not provide for this type of positions. However, in this sector it is becoming increasingly popular to have a budget for development activities: in 2020, it was present in 37% of entities involved in education while every fifth employer from this sector created such a budget in 2020.

Figure 10: Changes in having a development department in individual sectors between 2019 and 2020 (%; N = 670)

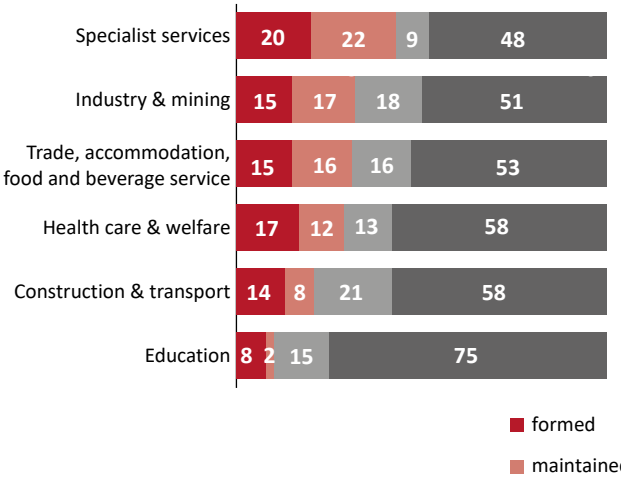
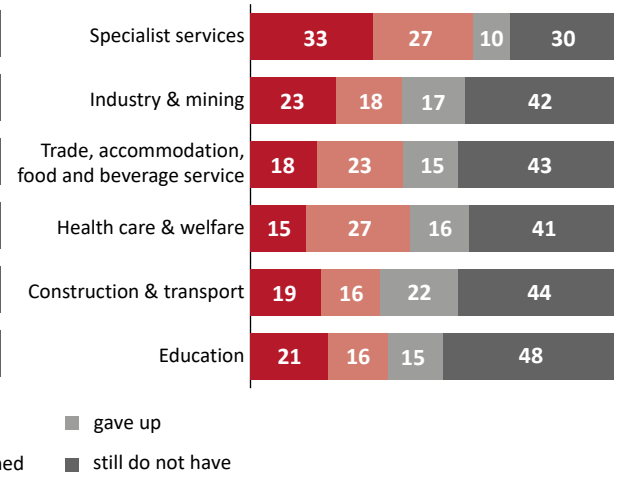


Figure 11: Changes in having a budget for development activities in individual sectors between 2019 and 2020 (%; N = 655)



Source: BKL Study 2019, 2020 – employer survey.

On the other hand, education was the sector in which competence needs assessment was particularly common and intensive in both 2019 and 2020. Systematic assessment of competence needs was carried out by 57% of employers from this sector (compared to 54% in 2019), and occasional assessment was conducted by 38% (compared to 31% in 2019). One in four employers from the sector started or intensified assessment in 2020, while almost one in five gave up or reduced assessment. Periodic assessment of teachers' competence is one of the characteristic features of this profession; that is why schools conducted regular activities in this regard despite the COVID-19 pandemic.

Intensification of competence needs assessment efforts is also visible in other sectors: assessment was started or its scope was extended by 27% of enterprises from the sector of specialist services and 22% of enterprises involved in construction & transport. When it comes to giving up or reducing assessment activities, the largest percentage of companies adopting such a strategy was observed in the sectors of construction & transport (24%).

Strategies of action in the case of competence gaps

Companies are more willing to use internal competence resources

The year 2020, along with new challenges, brought changes in employers' expectations as to the level of competence of their employees. 58% of entrepreneurs rated the competence of their employees as fully satisfactory, and 42% rated it as satisfactory but in need of development (Figure 12). Only one of the employers pointed out that the competence of his employees was insufficient to perform their work. Compared to the 2019 declarations, the rating of employees' competence decreased in the case of 21% of employers, and increased in the case of 18% (Figure 13).

Figure 12. Employers' rating of employees' competence level (%, N = 679)

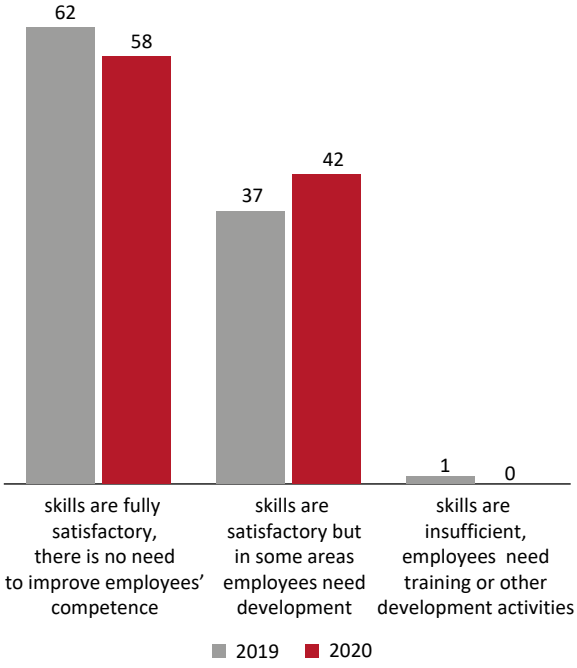
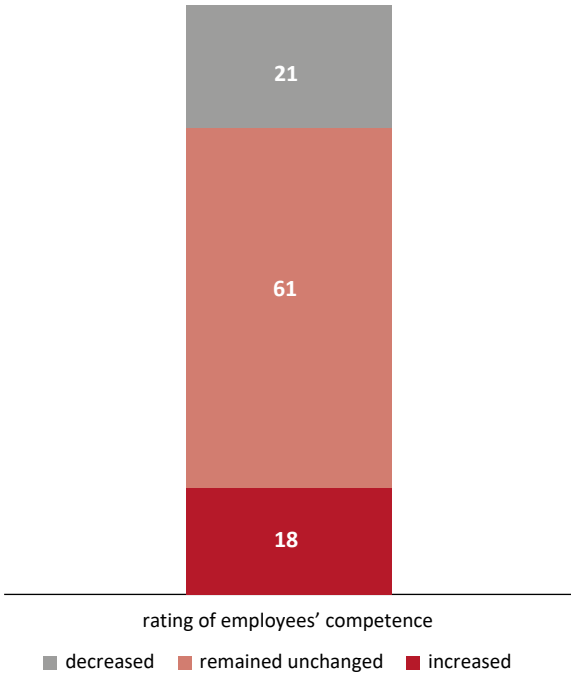


Figure 13. Change in the rating of employees' competence between 2019 and 2020 (%, N = 679)



Source: BKL Study 2019, 2020 – Employer survey.

Entrepreneurs can use several strategies to deal with competence gaps in their companies. The strategies can be divided into strategies relying on the internal resources of the company and strategies using opportunities of external acquisition of the required competence. Respondents were asked to determine which of the four strategies presented in the diagram (Diagram 3) they were most likely to use.

Diagram 3: Division of strategies used in the case of competence gaps. Internal and external strategies

Internal strategies	External strategies
training of current employees	finding new employees with proper qualifications and skills
reorganisation within the company leading to better use of the existing skills	hiring new employees who are then trained

Source: Authors' own study.

In 2020, just like in the previous year, enterprises' demand for new competence was much more frequently addressed by using internal rather than external resources. If competence gaps occurred, 73% of entrepreneurs trained their existing employees, while 4% carried out a reorganisation aimed at using the already-held skills. In a situation like that, every fifth entrepreneur looked for new employees with relevant qualifications, while the strategy of hiring new employees that required training was virtually non-existent. Three-quarters of employers did not change their main strategies compared to 2019. Every tenth reported a switch from strategies using internal resources to strategies of looking for them outside the company. Changes in the opposite direction, from looking for new employees to using the existing potential of the company, were recorded by 16% of entrepreneurs.

Competence needs of the company increase as it develops

The natural consequence of a company increasing the level of its development, particularly in the case of development strategies based on implementing innovations, is the accompanying increase in competence needs. More than a half of companies which entered a higher development level in 2020 assess the competence of their employees as satisfactory but in need of additional training (Figure 14). In this group, the rating of employees' competence decreased for 31% of employers (Figure 15). At the same time, almost two-thirds of

entrepreneurs whose level of company development decreased assess the competence of their employees as sufficient. Every fourth is of this opinion, although the year before they considered their employees' competence as requiring additional training.

Figure 14: Rating of the level of employees' competence in 2020 by companies which changed their level of development (%; N = 679)

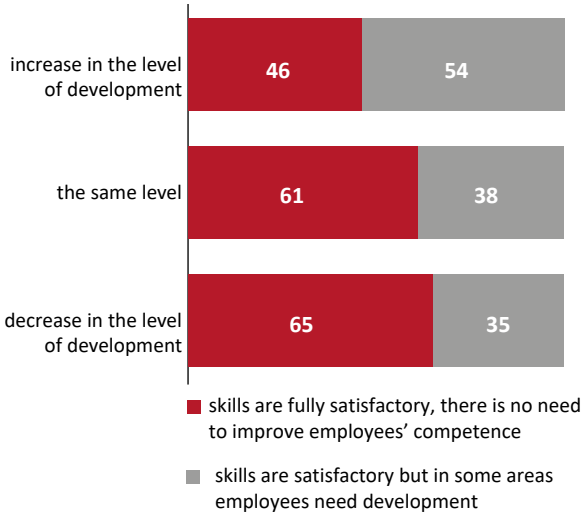
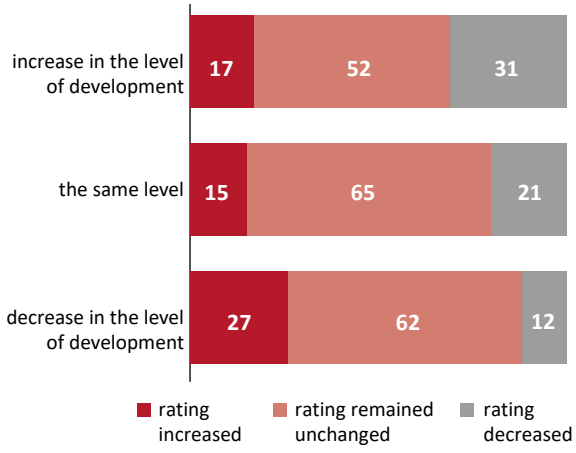


Figure 15: Change in the rating of employees' competence by companies which changed their level of development between 2019 and 2020 (%; N = 679)



Source: BKL Study 2019, 2020 – Employer survey.

Companies from different sectors use similar strategies to deal with competence gaps

Highest percentage of entrepreneurs that rate their employees' competence as fully satisfactory is observed in the sector of specialist services: 72% of employers from the sector are of this opinion (Figure 16). 23% of employers in this sector asses their employees' competence as higher than the year before (Figure 17). On the other hand, highest percentage of entrepreneurs who believe that their employees' competence, though satisfactory, requires additional training, is observed in the education (47%) and industry (46%) sectors (Figure 16). A higher percentage of entrepreneurs whose requirements regarding employees' competence increased rather than decreased is observed in the sectors of trade, education, and construction (Figure 17).

Figure 16: Rating of the level of employees' competence in 2020 by employers from particular sectors (%; N = 679)

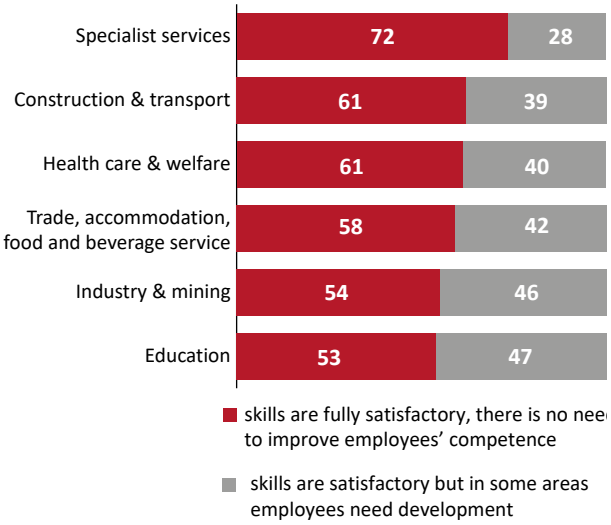
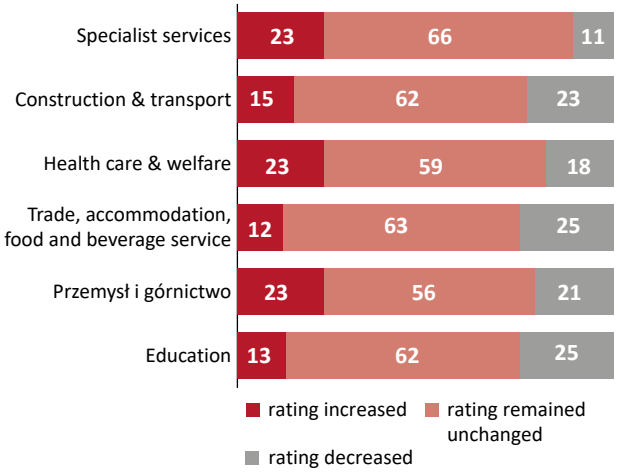


Figure 17: Change in the rating of the level of employees' competence by employers from particular sectors between 2019 and 2020 (%; N = 679)



Source: BKL Study 2019, 2020 – employer survey.

Among employers who assess the knowledge and skills of their employees as satisfactory but in need of development, three-quarters consider professional competence as requiring improvement. This was pointed out by a particularly high percentage of entrepreneurs from the sectors of health care (93%), education (84%), and services (82%). Social competence was much less frequently considered as requiring development: it was mentioned by 45% of entrepreneurs. These gaps concern in particular the sectors of health care (58%) and education (55%). Possible areas for improvement in the field of general competence turned out to be particularly visible in the education sector: the need of working on this area was expressed by 63% of entities.

The popularity of strategies of sealing competence gaps using the internal potential of the enterprise is higher in all sectors: it is used by 67% of enterprises from the sectors of trade, accommodation, and catering and 87% of enterprises from the industrial sector (Figure 18). Highest percentage of enterprises that, in 2020, changed their dominant strategy of sealing competence gaps from external to internal was observed in the sectors of construction & transport: this change occurred for almost one third of the enterprises. The change also occurred in the case of 18% of enterprises from the education sector, and 16% of enterprises from the industrial sector. Strategy change in the opposite direction, from internal to external, can be

observed mainly in the sectors of trade, accommodation, and catering (16%), and health care (15%) (Figure 19).

Figure 18: Percentage of companies using the internal or external strategy of sealing competence gaps in 2020 (%; N = 674)

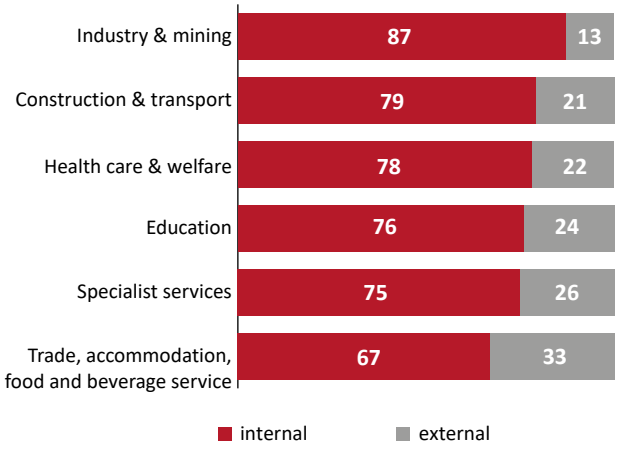
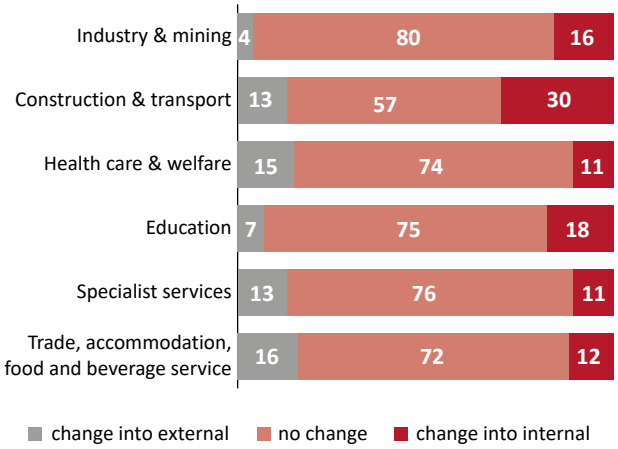


Figure 19: Percentage of companies which changed their strategy of sealing competence gaps in 2020 (%; N = 674)

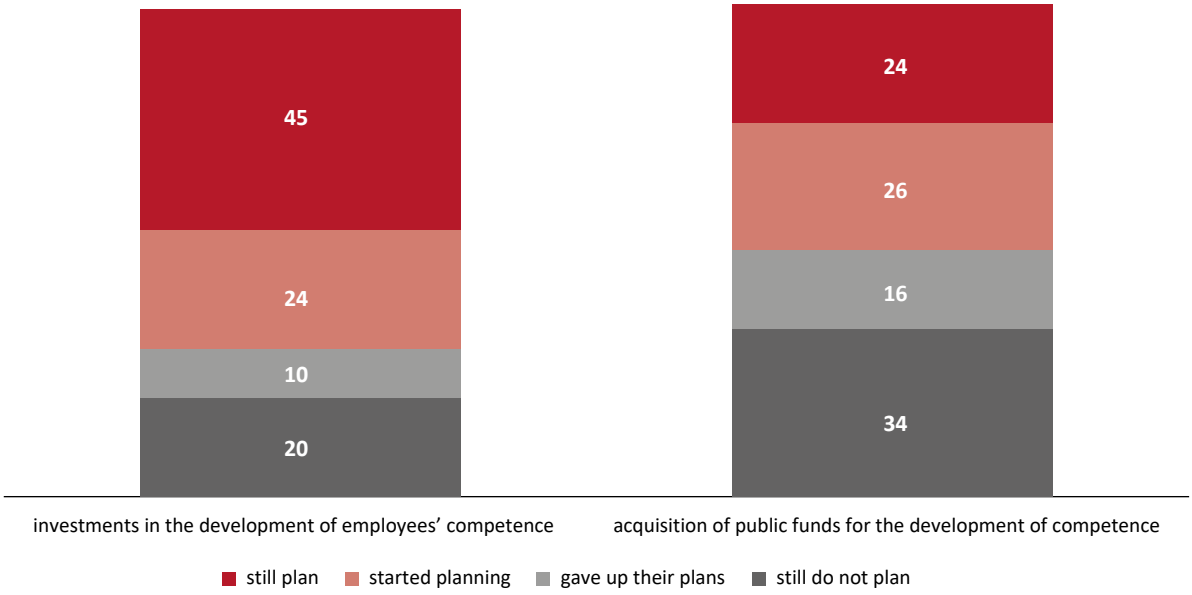


Source: BKL Study 2019, 2020 – Employer survey.

Large and medium-sized enterprises plan to invest in employee development in the future

In 2020, almost 70% of large and medium-sized enterprises were planning to invest in the development of employees' competence in the following year (Figure 20). This result is by 15% higher than the 2019 result. Every fourth entrepreneur had such plans even if they had not made them the year before. This can be interpreted as a sign of growing awareness of benefits of supporting employees' development activities. Also, planning to invest in the development of employees' competence is certainly the response to the changing competence needs of enterprises and is part of internal strategies intended to address them. However, it should be noted that not all employers are willing to make **such investments. Among enterprises which did not take up any activities to support the development of their employees in 2020, almost none plan to implement such activities in the following year.**

Figure 20: Plans of large and medium-sized entrepreneurs for investing in the development of employees' competence and acquiring public funds for this purpose in 2020 compared to the previous year (%; N = 509)



Source: BKL Study 2019, 2020 – Employer survey.

Planned investments in the development of employees' competence do not have to be financed solely by the employer. **Almost 50% of entrepreneurs intend to apply for public funds for this purpose.** As in 2019, also in 2020, the willingness to apply for co-financing of such activities is most likely to be expressed by entrepreneurs from the following sectors: medical, service, and education. However, it should be noted that there is growing interest in applying for public funds for this purpose among representatives of the sectors of construction, transport, and industry: almost one third of entrepreneurs from these sectors plan to apply, although they did not have such plans the year before.

Summary

As the results indicate, **despite the COVID-19 pandemic, medium-sized and large enterprises continued investing in the development of their employees' competence**. The percentage of companies supporting the development activity of employees did not change significantly when compared to the previous year. At the same time, the scale of activities undertaken decreased: the portfolio of the particular companies became less diverse (they gave

up individual forms of development support); the average number of persons trained decreased, and so did the average budget allocated for training.

Just like in 2019, one year later, **the most popular methods of developing employees' competence were activities aimed at individual development of the employee and preparing them for performing a specific professional role:** job instruction, job shadowing, coaching and mentoring, and internal training. The only exception is the sector of education, where investments were made mainly in training.

In view of the change in the way of working necessitated by the pandemic conditions, interest in remote methods of competence development increased. E-learning was the only form of competence building whose popularity increased. Yet, many enterprises gave up supporting development activities which required direct contact of a large number of employees, or travel.

Despite the difficult situation on the market, employers from medium-sized and large enterprises strengthened their strategic approach to development needs. The changes were of organisational nature and included the creation of development positions or departments and budget allocations to support employee development. Besides, also changes in practices were implemented, including systematic assessment of competence needs. As regards the competence gaps identified, enterprises were most likely to seal them using internal resources.

Medium-sized and large enterprises that entered the COVID-19 pandemic in their strong development phase continued to be leaders in supporting the development of employees' competence. Companies that were developing strongly in 2019 were more likely to support all forms of employee development in 2020. More frequently than others, they had development departments and development budgets.

A vast majority carried out systematic assessment of competence needs. Their potential, built in the previous years, allowed them to maintain the stability of activities during the crisis.

Enterprises whose level of development increased in 2020 when compared to the previous year more frequently than others started investing in new forms of supporting employees' competence. They were also more likely to initiate the creation of development departments and budgets as well as intensifying the assessment of competence needs. It can be concluded that a faster development rate entailed growing competence needs and mobilised employers to look for ways of addressing them.

A vast majority of large and medium-sized enterprises declared they intended to invest in the development of their employees in 2021. Many more employers had such plans than in the year preceding the COVID-19 pandemic. More than a half of entrepreneurs were planning to obtain public funds for this purpose.

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Development of competence of adult Poles in the conditions of the COVID-19 pandemic

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Jarosław Górniak
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Introduction

The COVID-19 pandemic destabilised the functioning of almost all areas of life, professional, family, and individual. Both individuals and entire organisations had to modify their activities, adapt to strict rules to prevent the spread of coronavirus, and change their habits. The change in the way and rules of functioning also applies to the sector of education, both formal and non-formal, and consequently, the possibilities and methods of competence development among children, youths, and adults. It is estimated that, on average, the decrease in the level of participation in non-formal education during the pandemic may amount to 18%, while the number of persons developing their competence in the informal way may decrease by 25% (OECD, 2021). Eurostat data on the participation in formal and non-formal education among persons aged 25-64 confirm these estimates, indicating that, between 2019 and 2020, educational activity of adults from the European countries decreased by 16% on average. However, there are countries where the decrease was very high (e.g., France and Bulgaria), and countries where educational activity increased (e.g., Turkey and Spain). According to Eurostat, Poland was one of the countries where a decrease in educational activity was recorded. Data from the 2020 Survey on the Educational Activity of the Population (BAEL) indicate that the percentage of persons aged 25–64 learning in a formal or non-formal way was only 3.7% in the four weeks preceding the survey and was by 23% lower than in 2019 when it was 4.8%. However, as indicated in publications related to the BKL Study (Górniak et al., 2020; Worek, 2019; Stec et al., 2018), the BAEL study underestimates educational activity of adults, and the values of indicators calculated based on the BKL data after the 2017 modification of the measurement method are much higher.

The objective of this chapter is to present the picture of educational activity of Polish adults, which can be built based on the BKL Study population surveys conducted in the fourth quarter of 2020, i.e., during the COVID-19 pandemic, and compare it with the time before the pandemic. To achieve this, we will present the indicators representing the educational activity of adult Poles in 2020 and compare them with the 2019 indicators. First of all, however, we will point to the changes that occurred in the use of various forms of competence development, work-based learning, remote training, and informal learning. We will also identify factors differentiating the scope of educational involvement of adult Poles.

During the COVID-19 pandemic, there were no significant changes in the general level of educational activity of adult Poles

The picture of educational activity of Poles during the COVID-19 pandemic, which can be drawn based on the results of BKL 2020 (study conducted at the end of 2020), is surprisingly positive, especially in the context of the above OECD analyses and Eurostat data. According to the BKL Study population survey 2020, **as many as 28% of adults aged 25–64[16] declared that, in the four weeks before the study was conducted, they had been learning in a formal or non-formal way[17]**. Importantly, the value of this indicator did not change significantly when compared to 2019 data: back then, it was 27%[18]. **In the twelve months** preceding the

[16] The analyses presented in this chapter were carried out for persons aged 25–64. Persons below 24 and above 65 are included only in the analysis of using the Internet. The exclusion of younger persons from most analyses is related to their continuation of formal education, which distorts the value of indicators of educational activity. Moreover, the exclusion of elderly people is dictated by the fact that they usually include mainly economically inactive persons, which, in turn, reduces the values of indicators of educational activity.

[17] The BKL study considers three major forms of learning, formal, non-formal and informal learning. Definitions and description of these classifications were presented in the 2020 BKL report on the development of competence (cf. Górniak et al. 2020, pp. 24–26).

[18] In the case of 2019, we consistently refer to the data from the panel sample. The indicator covers only organised forms of learning, does not include work-based learning and compulsory training (OH&S and Fire Protection). It is worth mentioning that according to the Statistics Poland data, only 3.7% of adult Poles of this age developed their competence in 2020.

study, **as many as 48% of respondents learnt formally or non-formally**, even slightly more than in 2019, when 46% of adults aged 25–64 recorded educational activity.

An equally positive picture is provided by the analysis of the value of **work-based learning** indicators: according to the BKL Study 2020, **29% of working persons were developing their competence in this way in the last four weeks, and 51% in the last twelve months before the study.** The values of these indicators were higher by several percentage points than the 2019 values.

On the other hand, a slight decrease in activity was recorded in the field of self-education (informal education). In 2020, 68% of adults aged 25–64 were developing their competence in this way, while in 2019 it was 74%.

This relative stability of the value of educational indicators between 2019 and 2020 may lead to the false belief that the situation caused by the COVID-19 pandemic did not affect the ways in which adult Poles were developing their competence. Although the level of overall educational activity was almost identical to that of the previous year, individual forms of development gained and lost popularity due to the pandemic restrictions and changes in the functioning of individuals and whole sectors.

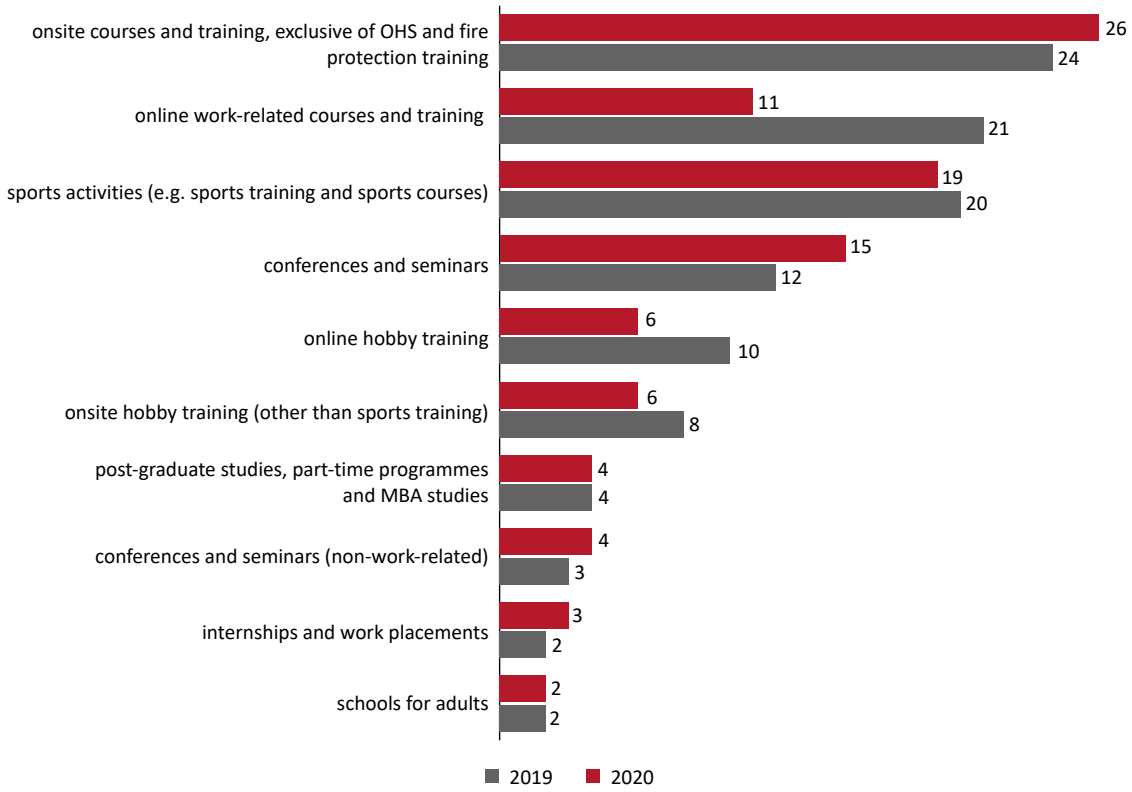
Large increase in the popularity of online training

The COVID-19 pandemic dramatically accelerated the digitisation process for educational services. Although remote training was used also before the pandemic, it was relatively rare in the offer of training companies, and was unlikely to be chosen by customers. While in 2019 more than twice as many persons (26%) used onsite professional development training than remote training (11%), in 2020, the difference between the percentage of persons participating in onsite and remote courses and training courses was only 3%. (Figure 1). In 2020, remote training was used in by 21% of persons aged 25–64 compared to 24% of persons of this age participating in traditional training. Importantly, the use of the Internet as a competence development tool was not limited only to the area of work-related training: **there was a significant increase in the percentage of persons who used remote courses and**

training unrelated to their work. In 2020, 10% of the respondents developed their non-professional skills using remote methods, compared to 6% in 2019. An interesting result is the absence of changes in the level of participation in sports (training or classes) between 2019 and 2020.

Despite the pandemic and the temporary suspension of sports activities due to the restrictions, the percentage of persons engaging in these forms of development in 2019 and 2020 was very similar (19% and 20%). It seems that the time after the restrictions were lifted was used for developing sports activity and, in addition to that (although this cannot be verified based on BKL data), certain sports classes during the lockdown were also remote, so they were not suspended.

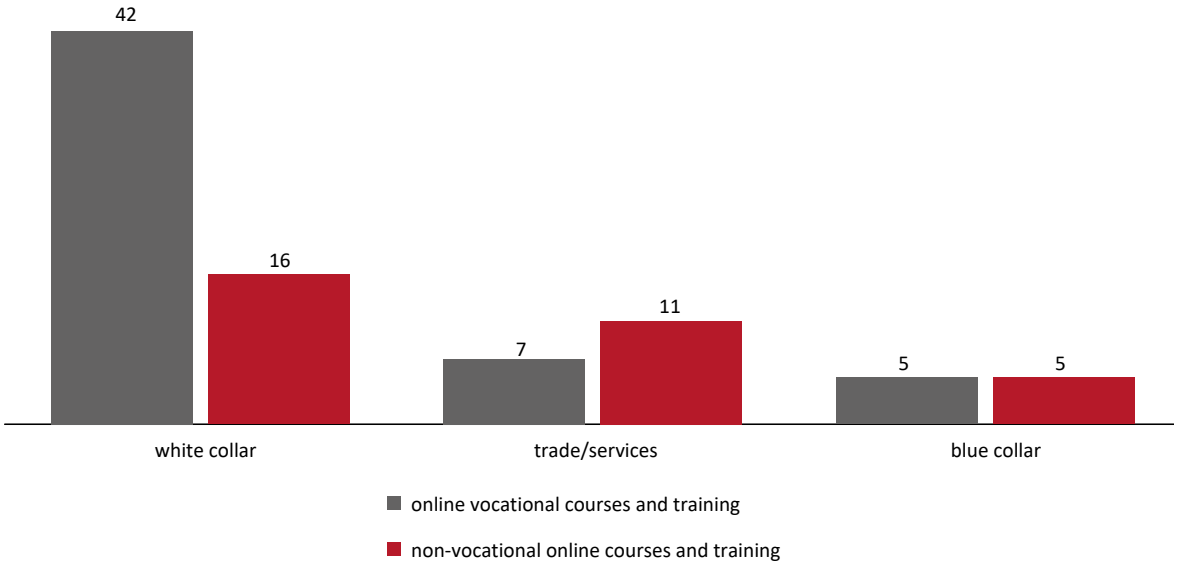
Figure 1: Development of competence in organised forms in 2019–2020 (N2020 = 1,345; N2019 = 1,294; %)



Source: BKL Study 2019, 2020 – Population survey.

The possibility of developing competence through remote training was mainly used by white-collar workers: as many as 42% declared that they participated in this form of training for professional purposes, while 16% said they used it for purposes unrelated to work (Figure 2). Among employees of the service-sector and blue collar workers, the percentages were significantly lower and amounted to 7% for trade and service workers' vocational training and 11% for their training unrelated to work. Among blue collar workers, only 5% used this form skills' development, for training, work, or purposes unrelated to work.

Figure 2: Participation in remote training vs the nature of work (N = 476; %)



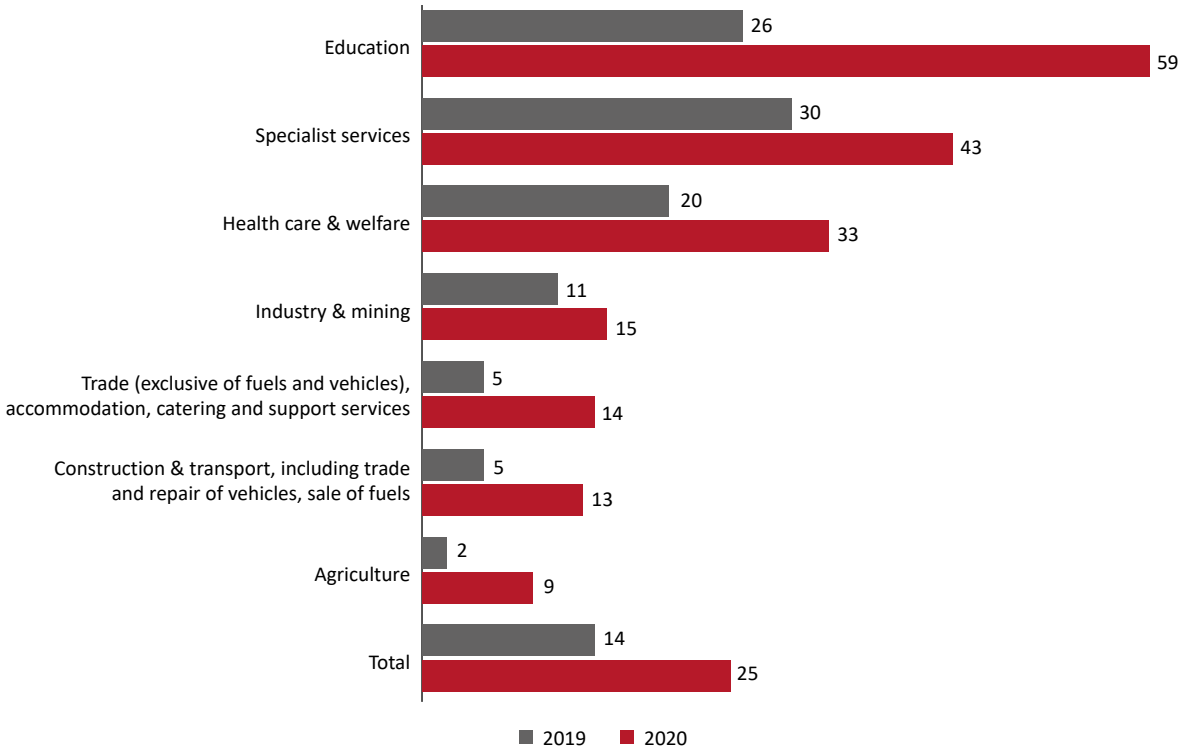
Source: BKL Study 2020 – Population survey.

Levels of participation in remote training slightly differ depending on the age of respondents: the percentages of persons developing their competence in this way are similar among persons aged 25–54, but lower among persons over 55. 28% of persons aged 25–34 and 13% of persons aged 55 or older participated in remote training related to work. Also, age is not a significant factor differentiating levels of participation in remote training unrelated to work: the percentages of persons developing their skills in this way are very similar across the age groups. This indicates that **the factor that most strongly affects the use of online training is the nature of work.** This conclusion is confirmed by the analysis verifying the relationship between the sector in which the respondent works and the participation in online training (Figure 3). In 2020, online work-related training was mostly used by employees in the sectors of education (59%), specialist services (43%), and health care & welfare (33%). This form

of competence development is definitely less popular in the sectors of agriculture (9%), construction & transport (13%), trade (14%), and industry & mining (15%). **When compared to 2019, the level of online training creased most in the sectors of education** (by 33 pp), **specialist services** (by 13 pp), **and health care & welfare** (also by 13 pp). In other sectors, the increase in the use of this form of development was not so high, but still significant. It is worth emphasising that among employees of various sectors, **online training and courses unrelated to work were also relatively popular**, although the percentages of persons participating in them were much lower than in the case of vocational training.

However, durability of the changes remains an interesting issue: are they only a temporary response to the COVID-19 pandemic and the limited opportunities of traditional competence development, or a new trend i.e., wider use of remote communication tools for learning and development? This question will be answered by data collected in future editions of the BKL Study.

Figure 3: Participation in online work-related training in the last 12 months in 2019 and 2020 vs the employment sector (N2019 = 1,017; N2020 = 1,084; %)



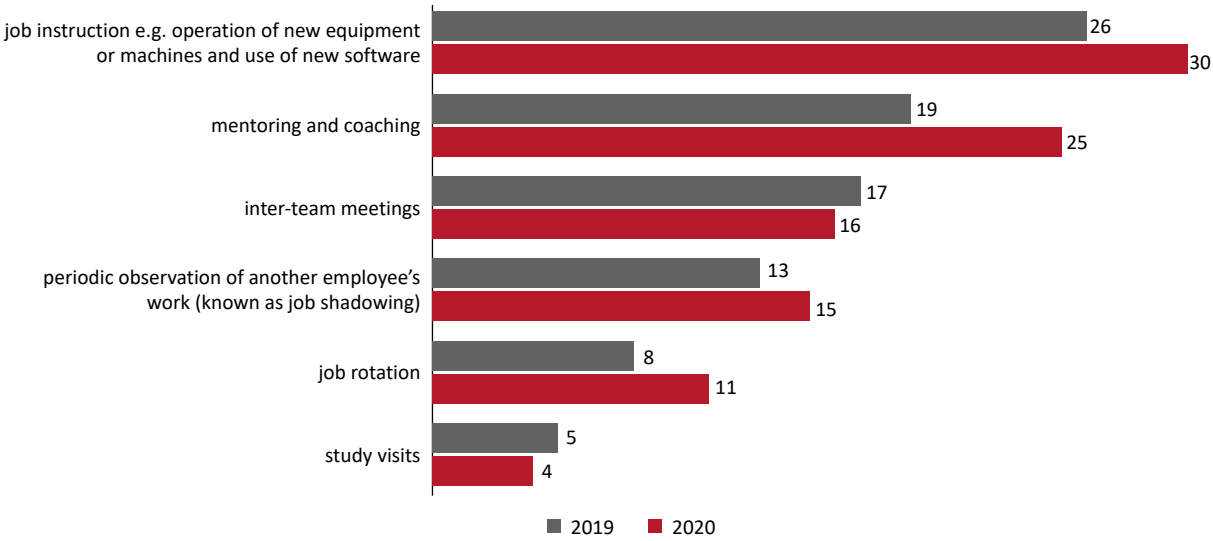
Source: BKL Study 2019, 2020 – Population survey.

Extensive use of work-based learning

It could be assumed that temporary closure of many sectors should result in reduced numbers of persons developing their competence in the workplace. However, the assumption has been verified by the data from the BKL Study population survey, according to which **more persons developed their competence in the workplace in 2020 than in 2019**[19]. Importantly, increased indicator values were observed for almost all forms of work-based learning (except for intra-company team meetings and study visits) (Figure 4). **The most common method of work-based learning was job instruction:** in 2020, it was used by 30% of employees, which was 4 pp more than in 2019. Moreover, employees frequently used **coaching or mentoring** (25% in 2020 vs 19% in 2019). There was an increase in the popularity of learning by **observing other employees** (15% in 2020, 13% in 2019) and **job rotation**, i.e., temporary performance of tasks in another position (11% in 2020 and 8% in 2019). It is difficult to clearly determine whether these changes were caused by the COVID-19 pandemic. However, change in the organisation of work caused by the restrictions, shifting to remote work, temporary absences of employees, and shift work could have resulted in the need of familiarising oneself with new work tools and new tasks, considering factors like the necessity of substituting for other employees, which, in turn, required the support from more experienced persons or exchange of information.

[19] In remote work, the work-based learning concept may be problematic due to professional duties performed at home. However, the question was not about work-based learning in general, but about specific ways of developing competence which traditionally involve learning that does not distract persons from their professional duties. Besides, bear in mind that the data relates to only using a given form of work-based learning but without referring to the scope or intensity of its use at all.

Figure 4: Work-based training in 2019 and 2020 among working persons (N2019 = 1,010; N2020 = 1,084; %)



Source: BKL Study 2019, 2020 – Population survey.

The use of various methods of work-based learning clearly differs between the sectors (Table 1). Farmers are least involved in work-based learning: this applies to almost all forms of development covered. In 2020, **job instruction** on the methods of operating new equipment and machines and using new software was very popular in the sector of education (which may stem from the need of familiarising oneself with remote learning tools) and in industry & mining. Additionally, education sector employees frequently mentioned learning during internal meetings (38%), observation of other employees (25%), and the use of mentoring or coaching (22%).

Table 1: Methods of work-based development of competence vs the sector of employment (working persons, N = 1,017; %)

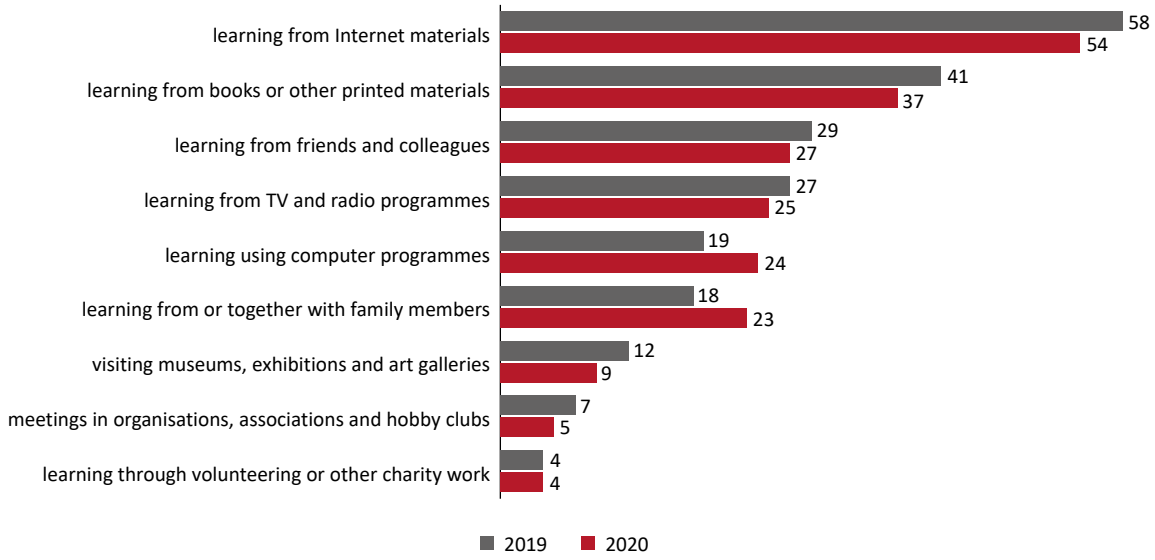
	Agriculture	Industry & mining	Construction & transport	Trade, accommodation, catering, support services	Specialist services	Education	Health care & welfare	Total
periodic observation of another employee's work (known as job shadowing)	4	18	14	13	14	25	22	16
mentoring and coaching	9	32	29	29	23	22	26	26
job rotation	5	19	9	11	12	4	7	11
job instruction e.g. the use of new equipment, machines and software	11	38	27	28	28	45	34	31
study visits	1	5	3	4	5	1	4	4
inter-team meetings	3	15	12	10	22	38	19	17
did not participate in any form of development	75	41	57	46	48	38	47	49
N	93	251	140	164	201	93	75	1017

Source: BKL Study 2020 – Population survey.

Slight decrease in involvement in independent competence development (informal education)

The only type of learning in which a decrease in the value of indicators was recorded in 2019 and 2020 was informal learning. Indicator values decreased for most methods of independent learning except learning from, or together with, members of one's family, and learning from computer programmes, where an increase in responses was recorded, as well as learning through community service, in which the same relatively low level was maintained (4%).
The increase in responses regarding learning from or together with family members (by 5 pp, from 18% in 2019 to 23% in 2020) may directly result from the lockdown and shifting from school-based learning to remote learning: many parents were involved in the education of their children, and learnt with them. What is more, the increase in the responses regarding learning using computer programmes (also by 5 pp, from 19% in 2019 to 24% in 2020) may be related to various platforms and tools that were used for remote learning.

Figure 5: Informal methods of competence development in 2019 and 2020 (N2020 = 1,345; N2019 = 1,294; %))



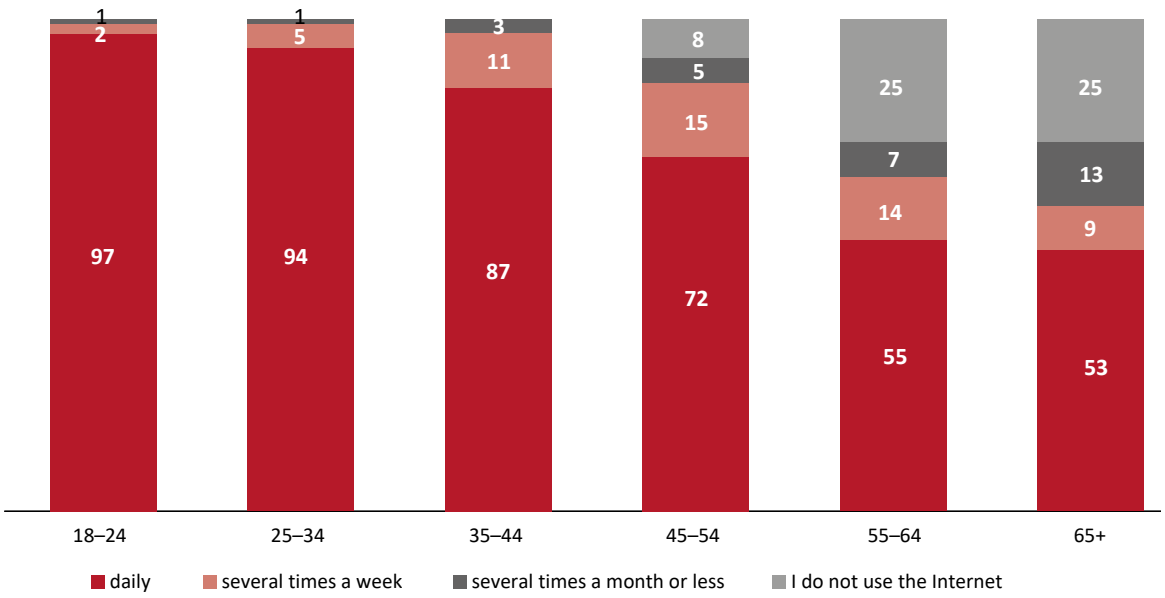
Source: BKL Study 2019, 2020 – Population survey.

The level of use of informal competence development methods is influenced by the same factors that differentiate learning in the formal and non-formal way: the situation in the labour market; the level of education; and the position in which the respondent is employed. Working persons are more likely than unemployed or economically inactive persons to use informal learning methods. The differences are biggest for online resources, which in 2020 provided new learning content to 57% of working persons, 33% of unemployed persons, and 38% of economically inactive persons. Labour force participation is therefore conducive not only to the development of work-related competence, but also influences (possibly thanks to the competence acquired) the use of the Internet for independent learning.

Another factor that affects the use of the Internet for educational purposes is respondent's age. It influences the very fact of using modern communication tools, thus determining the possibility of learning with their help. The prerequisite for using the Internet to develop competence is the possession of appropriate hardware, Internet access, and competence enabling the person to use these tools. Elderly people, who are much less likely than those younger to have the necessary competence to use this tool, are particularly exposed to the risk of digital exclusion (Batorski and Płoszaj, 2012; Śmiałowski, 2020; National Recovery

and Resilience Plan, 2021). The results of BKL Study 2020 confirm the significant impact of age as a factor affecting the use of the Internet, while demonstrating that the percentage of Internet users searching for information is growing among the elderly[20]. More than a half of those aged 65 and older declared that they used the Internet every day, and only 25% declared that they did not use it at all. The same percentage of persons who did not use the Internet was found in the group of those aged 55–64, and the number of persons who used the Internet every day (55%) was similar in this group. Among persons aged 45–54, only 8% declared that they did not use the Internet at all, while in the younger groups there were no people who did not use the Internet (Figure 6).

Figure 6: Frequency of Internet use vs respondents' age (N = 1,560; %)



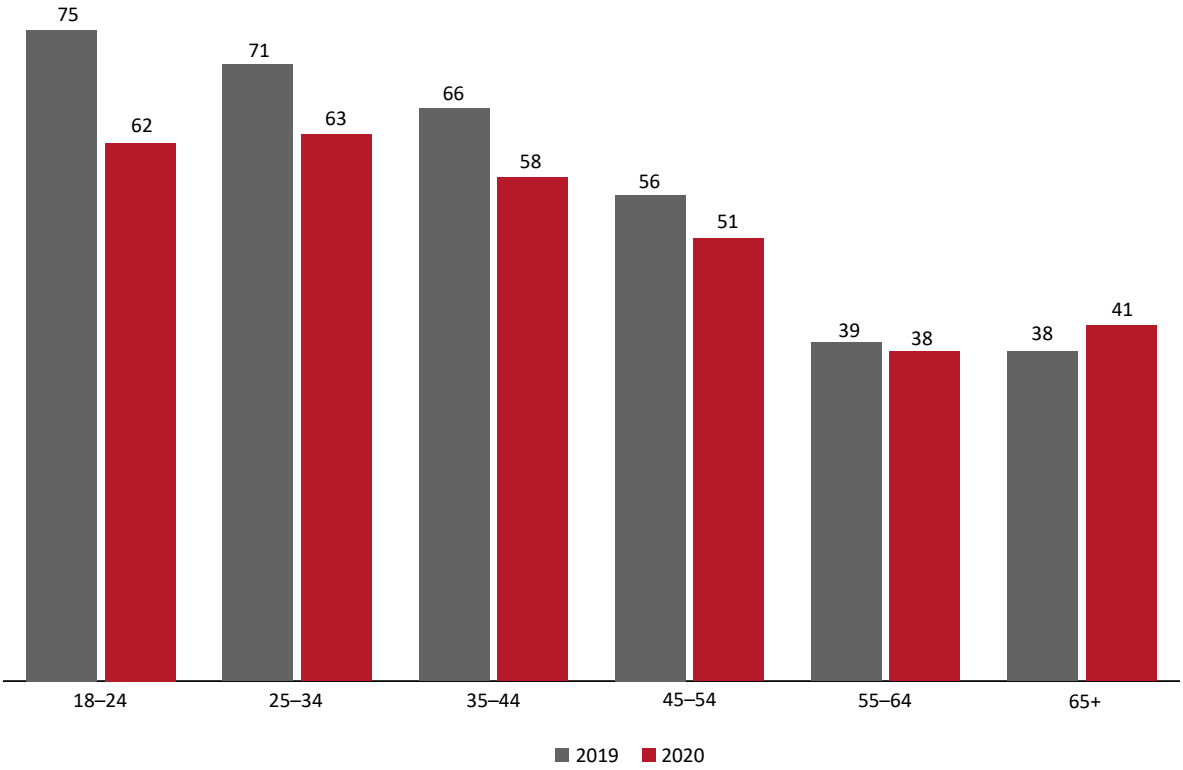
Source: BKL Study 2020 – Population survey.

Naturally, younger people are much more likely than the elderly to use the Internet for independent development: the difference in proportions between the youngest and oldest groups is 21 pp. Over 60% of persons aged 18–24 learn on their own using resources

[20] As a point of reference, it is worth referring to the data from the Social Diagnosis of 2015 (Czapiński and Panek, 2015). The results of these studies indicated that among persons aged 65 and older the percentage of Internet users was 17.9% and among those aged 60–64 was 40.8%. The increase in Internet users in older age groups may be the result of both simple demographic processes: the transition from one age cohort to another and the popularisation of this medium.

available on the Internet. Among persons aged 65 and older, this percentage is 41%. However, it can be considered high; in comparison, in 2017, it was only 18%[21]. This trend would be worth examining in 2021 to assess how sustainable it is and how it highlights the popularisation of the Internet as a skills development tool among the elderly.

Figure 7: Learning from resources available on the Internet in 2019 and 2020 (N2020 = 1,345; N2019 = 1,294; %)



Source: BKL Study 2019, 2020 – Population survey.

In 2020, younger and middle-aged people learnt on their own from resources available on the Internet less frequently than in 2019. This may be due to the significant increase in the use of online training and the load of remote work, resulting in reluctance to spend extra time in front of the screen.

[21] Data from 2017 come from a cross-sectional sample, not a panel sample. In 2019, the percentage of Internet users in the panel sample was slightly lower than in 2020 and was 38%.

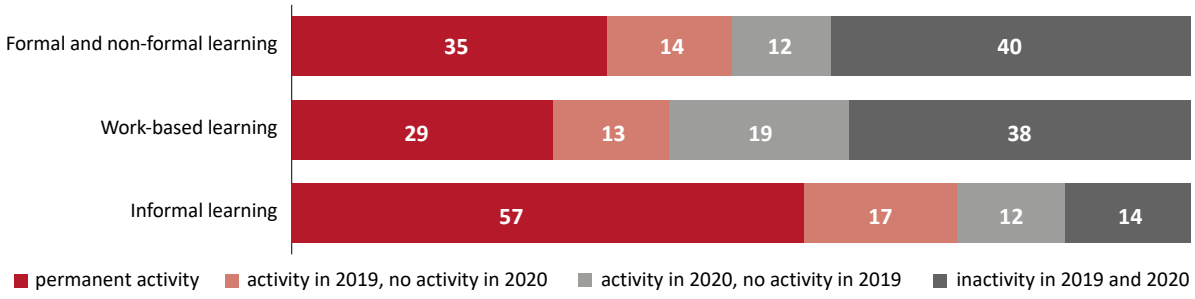
Permanently active, permanently inactive and mixed types: comparison of educational activity of Poles in 2019 and 2020

The panel sample allowed us to trace respondents' individual educational strategies in 2019 and 2020. Therefore, it was possible to distinguish between groups of respondents who, in those years, were characterised by permanent educational activity, permanent educational inactivity, or undertook educational activities only in 2019 or 2020. The assessment of educational activity and inactivity was carried out separately for three types of educational activity, i.e., the following types of learning:

1) formal and non-formal;
2) work-based;
3) informal.

Figure 8 presents information on the percentage of respondents in the particular categories distinguished based on continuity of educational activity or inactivity. **In the case of formal and non-formal education and work-based learning, the dominant strategies are inactivity or continuity of educational activities.** Mixed activities i.e., learning only in 2019 or 2020 are much less common. The situation is different in the case of **informal learning, where continuity of educational activities prevails.** In 2019 and 2020, 57% of respondents were systemically developing their skills by informal learning. Only 14% of all respondents aged 25–64 did not learn informally in either 2019 or 2020.

Figure 8: Continuity or lack of continuity of educational activity in 2019 and 2020 (N = 953; N for work-based learning 751; %)



Source: BKL Study 2019, 2020 – Population survey.

To identify the factors that contribute to educational inactivity or activity, we analysed the relationships between participation and non-participation in formal and non-formal education in 2019 and 2020, and factors like the level of education, the employment sector, and the workplace. Tables 2 to 4 show the results of the analysis.

Table 2: Educational activity/inactivity (formal and non-formal learning) in 2019 and 2020 vs the level of education

	lower secondary school	vocational	general secondary	vocational secondary	post-secondary school	bachelor/engineer degree	Master's degree	total
yes 2019 and 2020	7	7	32	25	27	48	68	35
yes 2019, no 2020	10	14	12	13	21	12	15	14
no 2019, yes 2020	1	11	13	18	15	15	8	12
no 2019 and 2020	82	68	42	45	37	25	9	40
N	52	219	68	187	76	84	267	953

Table 3: Educational activity/inactivity (formal and non-formal learning) in 2019 and 2020 vs respondent's position

	managers	professionals	associate professionals	clerical support workers	service and sales workers	skilled workers	operators and assemblers	unskilled workers	total
yes 2019 and 2020	80	73	45	39	26	23	17	5	44
yes 2019, no 2020	3	12	19	23	21	10	22	12	15
no 2019, yes 2020	6	10	15	9	14	19	11	9	12
no 2019 and 2020	10	5	21	29	39	48	50	73	28
N	45	169	92	48	57	90	74	27	602

Table 4: Educational activity/inactivity (formal and non-formal learning) in 2019 and 2020 vs the sector of employment

	Agriculture	Industry & mining	Construction & transport	Trade, accommodation, catering, support services	Specialist services	Education	Health care & welfare	total
yes 2019 and 2020	17	36	27	29	56	72	54	40
yes 2019, no 2020	17	16	12	16	18	13	11	15
no 2019, yes 2020	15	12	7	16	11	9	16	12
no 2019 and 2020	51	37	55	39	16	6	20	33
N	75	177	89	111	135	73	44	705

Source: BKL Study 2019, 2020 – Population survey.

First of all, the results of this analysis make it possible **to identify the correlates of permanent educational activity or inactivity.** Factors conducive to permanent educational activity include:

1) **Master's degree:** The difference between persons holding a master's degree and those with bachelor's degree is clearly visible. Among master's degree's holders, we observe the largest proportion of people who keep developing their competence;
2) Persons with **bachelor's degree** are, in terms of their educational strategies, more like secondary school graduates, including those with post-secondary, vocational, and general secondary education. Their educational activities are rather selective than continuous: they include a higher-than-average number of persons who learnt formally or non-formally in 2019 but did not continue their education in the following year, or undertook educational activity in 2020, although they had not been learning in 2019;
3) **Status of a professional:** Of all the occupational groups we analysed, professionals are characterised by the highest degree of continuity of educational activities; they are a group that systematically develops their competence in the subsequent years. Somewhat similar is the group of managers; however, among them, the percentages of persons constantly developing their competence are slightly lower;
4) **Work in the sectors of specialist services, education, health care & welfare:** Employees of these sectors not only most frequently develop their competence, but are also characterised by continuity of development activities; the group includes the largest number of persons who learnt in both 2019 and 2020.

Permanent educational inactivity in formal and non-formal learning most often coincides with:

1) **Vocational or lower secondary education:** Persons with this level of education are much more likely not to use training or other ways of non-formal learning permanently;
2) **Workers:** Persons who permanently do not use courses or training are most likely to be found among workers performing simple tasks, industrial workers, craftsmen, and farmers;
3) **Work in the sectors of construction & transport:** Employees of these sectors include the largest number of persons permanently unlikely to participate in training. This distinguishes them from those working in trade, accommodation, catering, industry & mining, who are more likely to undertake occasional educational activity.

In addition, we analysed activity and inactivity from the perspective of work-based learning and obtained comparable results (Table 5). Permanence of work-based learning is most common among the same occupational groups that are likely to permanently develop their competence in the formal or non-formal way i.e., managers and professionals. The occupational groups that most frequently record permanent lack of work-based learning are workers performing simple tasks, service and sales workers, and operators.

Among service and sales workers and among technicians and clerical support workers, the percentage of people who in 2020 participated in work-based learning is higher than in other occupational groups, although they were not that likely to participate in work-based learning the year before. Therefore, in these occupational groups, we could look for employees whose 2020 work environments saw changes that contributed to the need of competence development. Another interesting group are professionals among whom the percentage of persons who did not continue work-based learning in 2020 is highest among all the occupational groups. It could be assumed that the factor that contributed to that was the shift to remote work and the related lower opportunity of developing competence in the workplace.

Table 5: Activity/inactivity with regard to work-based learning vs the position

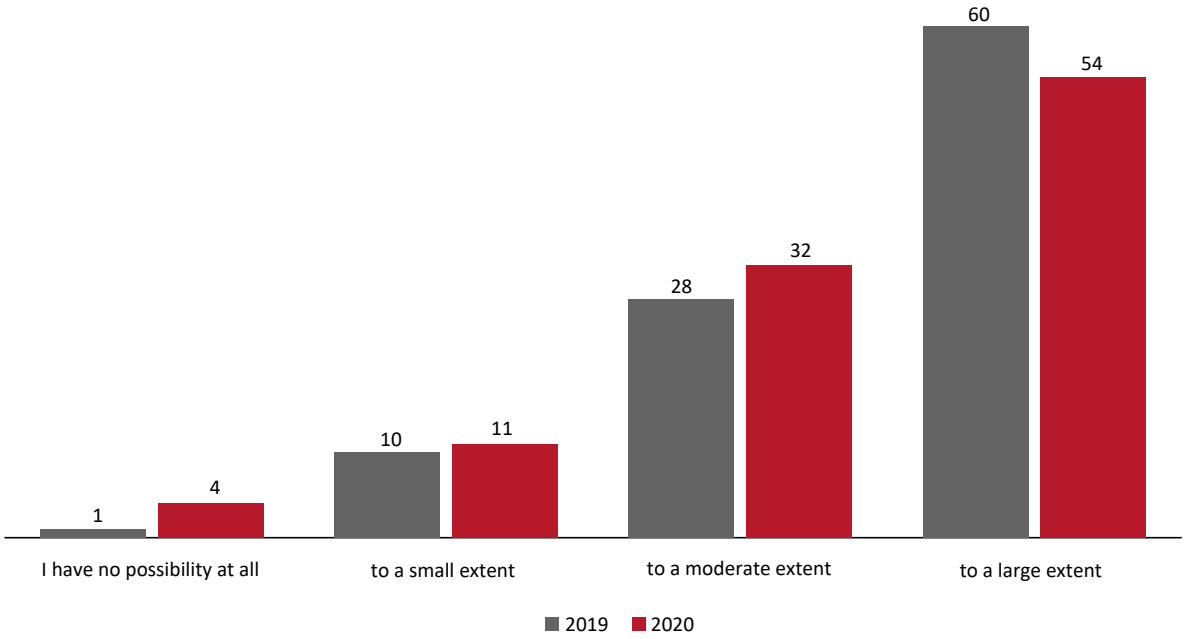
	managers	professionals	associate professionals	clerical support workers	service and sales workers	skilled workers	operators and assemblers	unskilled workers	total
yes 2019 and 2020	50	45	34	37	9	38	35	19	36
yes 2019, no 2020	11	21	12	16	17	13	12	12	15
no 2019, yes 2020	17	17	25	19	30	21	10	19	19
no 2019 and 2020	21	17	29	28	45	27	43	50	29
N	48	170	95	51	65	98	79	30	636

Source: BKL Study 2019, 2020 – Population survey.

Possibility to use the knowledge and skills gained

As indicated in the previous BKL Study reports, **a strong incentive for competence development is the possibility of using it at work.** In 2020, like in 2019 and the previous years, **most persons who learnt formally, non-formally,** or in the workplace declared that they may use the knowledge and skills **at work:** 54% said they could use the skills to a large extent, 32% to a moderate extent, and 11% to a small extent. Only 4% of working persons declared that they had no possibility to use the skills they had acquired. When compared to 2019, the percentage of persons who believed they could use the gained skills to a large extent slightly decreased (by 6 pp) in 2020, while the percentage of those who declared they could not use them at all increased by 3.3 pp.

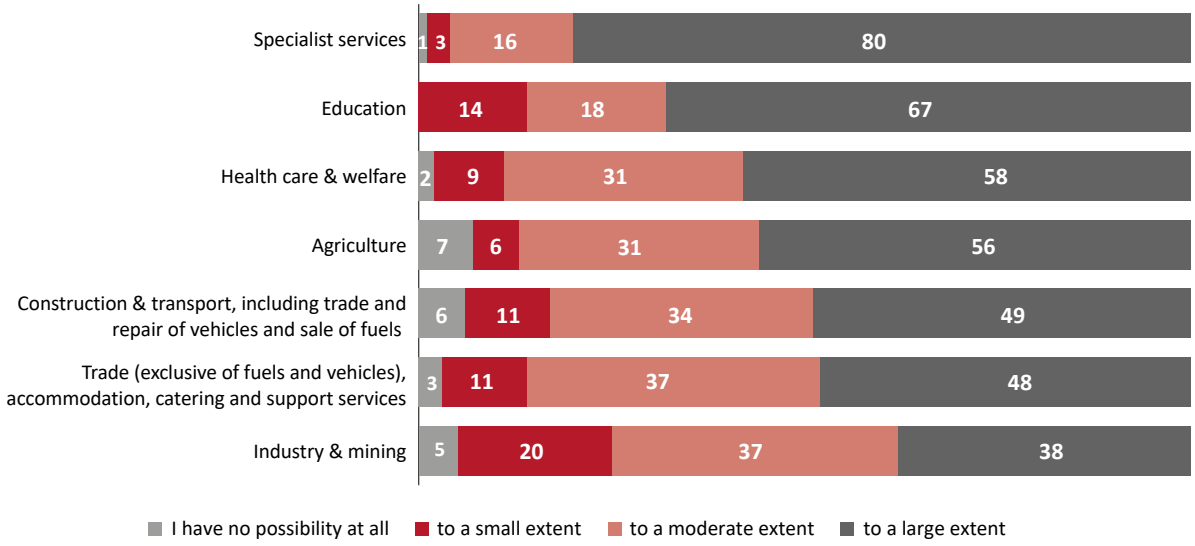
Figure 9: Possibility to use the acquired competence at work, working persons (N2019 = 547; N2020 = 554; %)



Source: BKL Study 2019, 2020 – Population survey.

The possibility to use the gained knowledge and skills is best-rated by persons working in the sectors of specialist services, education, and health care & welfare. The lowest number of persons declaring that they could use the skills to a large extent was found among workers of the sectors of industry & mining. Among them, the percentage of persons declaring the low possibility of using the knowledge and skills developed thanks to training was highest as well.

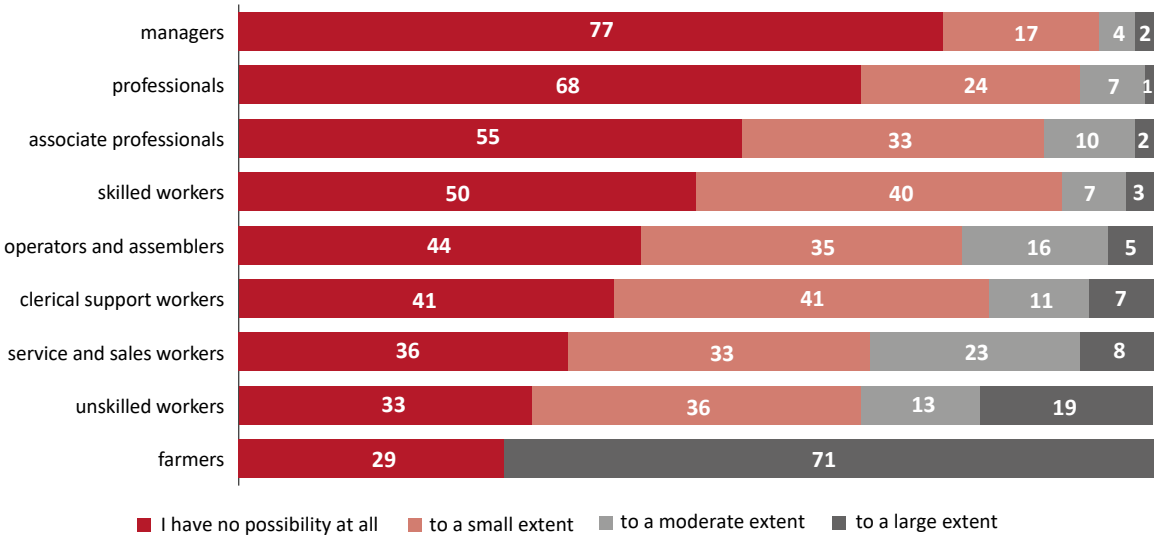
Figure 10: Possibility to use the competence at work vs the sector of employment, working persons (N2020 = 554; %)



Source: BKL Study 2020 – Population survey.

Usefulness of the knowledge gained through training increases with the complexity of work and demand for creativity and independence. This may explain the high rating of possibilities to use the skills among managers and professionals (Figure 11). It can be assumed that they not only have greater possibilities to use the knowledge gained, but also a greater influence on the choice of the subject of training in which they participate. **On the other hand, use of knowledge is not supported by routine work**: this can explain the relatively weak belief in the usefulness of training among workers performing simple tasks and service and sales workers.

Figure 11: Possibility to use the acquired competence at work vs. the position, working persons (N2020 = 554; %)



Source: BKL Study 2020 – Population survey.

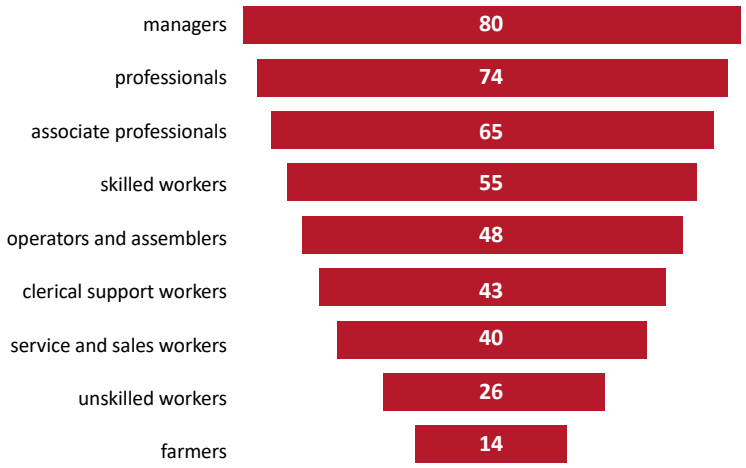
Motivation for further competence development and factors hindering development

BKL Studies reveal not only a relatively positive picture of educational activity during the COVID-19 pandemic, but also **continuous interest in further development among the majority of panel participants**. Although in 2020 the percentage of respondents declaring they were willing to develop their skills in the following twelve months slightly decreased when compared to 2019, still, **more than a half of respondents (51%) and even more working persons (58%) declared they were interested in further development.** On the other hand, we need to bear in mind that almost a half of respondents express no interest in participating in organised forms of competence development.

Once again, the results of this analysis are indicative of the existence of **a strong relationship between the willingness to develop competence and the possibility to use it at work.** Respondents who declared they wanted to develop their competence in the following twelve months were much more likely than other respondents to declare they had a possibility

to use the competence at work. A good addition to this conclusion is the analysis of interest in further learning in the particular occupational groups. As shown in Figure 12, the level of development motivation is highest among employees in managerial positions, working as professionals, technicians, and associate professionals. On the other hand, the lowest level of interest in further development occurs among farmers and workers performing simple tasks, who also assess their possibilities of using the competence at work as low.

Figure 12: Interest in competence development in the next twelve months vs the position (N = 855; %)



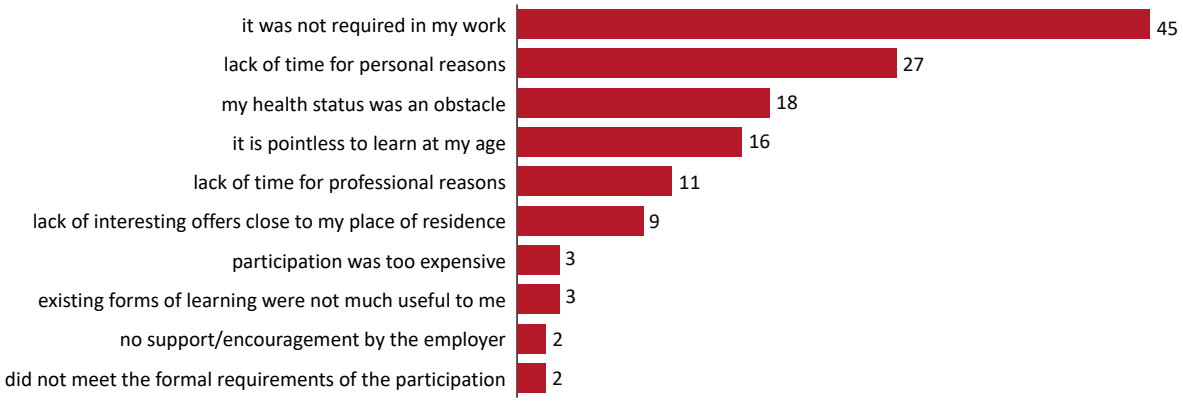
Source: BKL Study 2020 – Population survey; N = 855

As declared, the causes of educational inactivity remained unchanged as well (Figure 13). Like in all previous editions of the BKL Study, **lack of professional motivation** was mentioned as first (45%). This factor was most frequently mentioned by farmers (78%), and relatively least frequently by workers of the health care & welfare sector (53%). It can be assumed that the need to develop competence could appear along with new professional challenges, changes in work tools, work techniques, and new professional tasks. The lack of professional motivation for development may therefore be indicative of a certain degree of stabilisation or even routine at work for which new or updated competence is not needed. Indirectly, this suggests the lack of changes or the lack of introduction of new solutions in companies or institutions that employ these workers.

The second most frequently mentioned barrier to learning in the organised way is **lack of time, due to personal reasons** (27%). This barrier is most frequently mentioned by those working in

the sector of health care & welfare (47%) and those working in industry & mining (36%). Lack of time due to personal reasons is more likely to be mentioned by younger persons, and less likely by older. **On the other hand, persons aged 45 and older frequently declare that at their age learning is pointless**. In the group aged 65 and older, 55% of respondents agreed with the statement that they were too old to learn. Among slightly younger persons, aged 55-64, the percentage of those expressing the belief that learning made no sense due to their age was 33%, and among persons aged 45–54, it was 20%. This strong, well-established belief that there is no point in learning at an older age can be a serious barrier to maintaining labour market participation among persons of pre-retirement and retirement age. It is worth bearing in mind that this belief refers not only to work-related competence development, but to learning in an organised way in general. It can seriously impede participation in other initiatives aimed at developing elderly people's competence including digital competence, which is pointed out in the National Recovery Plan (KPO 2020).

Figure 13: Reasons for non-participation in organised forms of competence development (N = 481; %)



Source: BKL Study 2020 – Population survey.

At the same time, it appears that lack of encouragement from the employer's, the belief that previous training was useless, and high costs of training are rarely mentioned as barriers to educational activity. **It would be worthwhile to use the results of this analysis to develop types of activities supporting the educational activity of adults. It is essential to correctly identify the development needs, motivation to learn, and barriers to learning as well as methods of competence development appropriate for a given category of persons, and only then provide financial support.**

Summary

The results presented in this chapter indicate that the COVID-19 pandemic has not had an adverse effect on the level of educational activity of adult Poles measured as participation in formal, non-formal, and informal education. The 2020 values of the general adult learning indicators are like those of the previous years. However, changes occurred in the field of forms of competence development and, in particular, the level of use of remote and work-based learning. The need to adapt to stricter safety requirements, remote work, and work rotation meant that many employees had to acquire new skills, related not only to the use of remote work platforms and tools. Therefore, for many, the crisis caused by the pandemic could be a stimulus and opportunity to develop skills that they would not have acquired under other conditions. Looking from this perspective, the COVID-19 pandemic, despite the huge costs, can be perceived as a development opportunity of which effective use can be made. However, this requires reflection on the changes that occurred at that time, formulating conclusions, and using the experience gained. Also, this reflection should be based on evidence, including data on adults' learning methods, learning motivations, and actual barriers to development.

The source of such evidence may be the BKL Studies, which once again reveal the significant role of work environment in shaping development motivation, and confirm that adult learning methods are diversified.

Moreover, we should not forget about the large group of persons who continue to be permanently inactive with regard to education, and are also most likely to be economically inactive, or employed in positions that stimulate development only to a limited extent. Therefore, without learning, they lag behind, increasing their distance to those who are permanently active. Hence, measures supporting educational activity of adults should be implemented in two ways. On the one hand, they should be used to maximise the potential of persons who are developing their careers and have strong professional stimulation for development, strengthened by the sense they are using the acquired skills at work. On the other hand, they should provide development opportunities to those who either remain outside the labour market, or perform work that seemingly does not require upgrading competence. These persons are particularly exposed to the risk of their competence becoming outdated and, in the case of automation of simple tasks, risk of losing their jobs. In all these activities, it is necessary to take account of the extensive and continuously

expanding access to knowledge and, on the other hand, adults' specific need of using the knowledge and skills in practice, either in their careers or private lives. Therefore, a good direction is to support work-based learning, extend the possibilities of validating the competence gained outside the formal education system, appreciate the importance of knowledge brokers and trainers whose role is to support learners in the selection of content and methods of education, and strengthen learning through action.

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