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Competitiveness of Individuals in the Labour Market During the Pandemic

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Abstract

The global COVID-19 pandemic has changed the behaviour of individuals and companies. This study aims to determine changes in the labour market behaviour of economically active individuals in the context of the pandemic and to identify competitive segments in this period. For this purpose, a representative survey (n = 3079) conducted in the Czech Republic was used. The paper's contribution is a perspective of individuals' behaviour and their perception of the situation. Based on subjective perceptions, respondents provided an assessment of their living situation before and during the pandemic, expressing their opinion on the importance of selected aspects of quality of life, such as their health, active social contacts, creation of financial savings, ability to pay bills, leisure time and coping with stressful situations. The results of a Wilcoxon test showed that individuals re-evaluated each aspect of life and that the pandemic changed the importance for all of them (except leisure time). This change is also reflected in their psyche, attitude towards work organisation, digitalisation and other factors; these were applied in a cluster analysis, which resulted in the identification of three segments in the group of employees in the labour market (competitive individuals, surviving individuals and those reluctant to respond to change). For the group of entrepreneurs, two segments emerged (flexible and loss-creating), while for the unemployed group, the typical segment can be described as dissatisfied and Covid victims. The names of these segments indicate their behaviour and provide possibilities for future use.

Keywords: COVID-19 pandemic, perception of change, competitiveness, labour market, employee, entrepreneur
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1. INTRODUCTION

The World Health Organization first designated COVID-19 a pandemic in March 2020. Since then, the emergency has evolved into a global public health emergency and an economic crisis (Congressional Research Service, 2021). Since this time, numerous authors have focused on the impact of COVID-19 on health but also on economic and societal perspectives (Laato et al., 2020; Steth, 2020), including impacts on labour markets. According to Lemieux et al. (2020),

the pandemic reduced total working hours while unemployment increased. Churchill (2020) explored the idea that young people aged 15–29 were more at risk of unemployment in pandemics compared to older people. The contribution of this paper to the research debate is the focus on the individuals in the Czech Republic and their perceptions, as well as the exploration of how the pandemic has affected the lives of individuals and their competitiveness in the labour market.

Currently, COVID-19 has, and especially in the future will have, an impact on both the behavioural changes of individuals and the behavioural changes of companies. These changes concern the life of the individual as a whole, the perception of one's own health, the importance of family and working life, the perception and use of e-technologies, online communication and other areas. Crises of any type, including COVID-19, are a significant stimulus for implementing a range of innovative changes (Deok et al., 2020).

Given the period in which it was realised, this study aims to uncover early manifestations of changes in the labour market behaviour of economically active individuals in the context of the COVID-19 pandemic. Based on a survey of Czech respondents, this study aims to verify changes in individuals' perceptions of aspects of their lives that influence their labour market behaviour before and during a pandemic. The subsequent aim is to identify the segments of economically active individuals in the labour market that have formed during the pandemic and to determine their competitiveness.

This study is structured as follows: section two reviews the literature concerning the behaviour of individuals in the labour market and aspects of changes related to digitalisation. Section three introduces the data and methods used. Section four provides results and discussion and is divided into three parts. Firstly, it is devoted to individual perceptions of the pandemic in the context of employment or business. Secondly, it verifies changes in aspects of life affecting working life before and during the pandemic. Thirdly, it identifies segments in the labour market. We provide brief conclusions in section five.

2. THEORETICAL BACKGROUND

The global COVID-19 pandemic has significantly affected people's lives and their consumer behaviour and is equally affecting the behaviour of companies and the business of various sectors on an existential level (Donthu, 2021). Kirk & Rifkin (2020) point to the urgent need to monitor these behavioural changes. The standard approach to the issue of individuals in the labour market is based on neoclassical axioms. It reasons the division of time between working hours and free time (see Varian, 2019). Preferences at the individual level can be changed, such as the appreciation of leisure time or time spent with family and depreciation of working effort. The cause of this change can be a significant life change, stress or illness (Bowles & Halliday, 2021).

In terms of how the pandemic affects individuals, it is possible to identify several aspects of life that are affected and changed. Xiong et al. (2020) primarily discuss the impact of the pandemic on coping with stress and on the mental health of individuals, such as depression, which is evident in people quarantined for long periods of time or those who have lost their jobs. Naveed et al. (2022) also highlight the increased stress associated with the pandemic and social distancing. According to Han & Sa (2022), leisure activities can reduce stress and quality of life during a pandemic.

Due to concerns about the future, households are trying to save, which works well for high-income households (MacGee et al., 2022) but is a problem for low-income households, which are often unable to pay their bills (Findling et al., 2021) and therefore incur debts (MacGee et al., 2022). In a pandemic, the quality of life for some individuals declines greatly, and they struggle just to stay healthy and meet basic human needs (Hansel et al., 2022). Changes in individuals' lives can affect their behaviour and competitiveness in the labour market, which Sabetova (2016) summarises as total abilities, competencies and motives. Fedchenko & Danker (2015) see personal competitiveness based on physical and mental health, emotional intelligence and adaptability to the needs of labour. The adaptability of individuals is emphasised by Mungiu (2019), who adds that society needs innovative individuals capable of finding efficient solutions.

In terms of how the pandemic changes the labour market and the behaviour of companies, it is possible to conclude that in the short time, there was a change in the labour supply when the most affected sectors were forced to reduce job positions (Brioscu et al., 2021). The consequence of this reduction of jobs was an increase in the unemployment rate with the onset of the pandemic (Findling et al., 2021). In the Czech Republic, the unemployment rate was very low before the pandemic due to economic growth (Koisova et al., 2018). The pandemic has changed this favourable situation. The long-term changes triggered by the pandemic relate to the need for digitalisation. Zamfir & Aldea (2020) state that the development of information technology and the gradual digitalisation due to the pandemic have seen significant acceleration of the process of change in the labour market, where there has been an increase in working from home, which has brought about the need to equip workers with quality technology. It appears that the new methods, especially the communication technologies used in the pandemic, will also be used in the eventual post-Covid era (Wrycza & Maślankowski, 2020). Sabou et al. (2017) point to the necessary availability of devices (such as computers and tablets), as well as the necessary knowledge of how to use these devices effectively to gain a competitive advantage in the labour market. Dvorak et al. (2020) add that during the pandemic, the possibility of working remotely in the form of home offices became widespread.

Working from home is only possible for certain professions, typically managers (Boushey, 2016). In contrast, many lower-level workers struggle with involuntary part-time work and unpredictable work timetables; however, according to Rhomberg (2020), the labour movement has recognised this 'deficiency' and is trying to address it. Heggeness & Fields (2020) also highlight the care of children, who often remained at home throughout public-safety measures. Women with children have had to remain unemployed and report a lack of childcare support in this regard (Rhomberg, 2021). Nivakoski & Mascherini (2021) highlight the imbalance in unemployment between men and women during the pandemic. They explain this difference mainly by the greater childcare needs due to the closure of schools, resulting in the labour market experience of mothers staying at home with their children. Forsythe et al. (2020) argue that working from home at the beginning of the pandemic only postponed the necessary layoffs and that, after the first few months, the demand for work began to decrease significantly. However, many flexible part-time positions have emerged in the labour market (Alon et al., 2020). According to Bhandari et al. (2021), layoffs due to the pandemic also affected the health sector, which is otherwise stable and resistant to recessions.

The changes occurring in the labour market that have a strong impact on the economy need to be

tracked by individual sectors of the national economy. As mentioned by Cutler & Summers (2020), the pandemic poses a great threat to economic prosperity and well-being. Of particular interest is the health and social services sector, where the Covid pandemic has caused a meteoric rise in the number of skilled workers who are not in the market and cannot be quickly obtained (Dillender et al., 2021). The measures taken by governments to prevent the spread of the disease (closure of restaurants and shops, cancellation of cultural and sporting events, cancellation of classes and restrictions on the movement of people, among others) have been accompanied by a decrease in working hours (Lemieux et al., 2020). For this reason, service industries, including other groups of small entrepreneurs that were most affected by the lockdown and had to close down, affected the labour market by increasing the number of unemployed workers. Then, there are sectors that have reduced their activities in some ways and retained workers with the help of government support (Li & Liang, 2021). It should be noted that these companies did not increase unemployment. Still, the question must be asked how companies used this time of crisis to innovate or fundamentally change the production processes needed for company development in the post-crisis period. Part of the preparation is the necessary retraining of the workforce. The COVID-19 pandemic has made visible sectors of the labour market that have, and especially will have, labour shortages in automation, digitalisation and robotisation (Gorzelany-Dziadkowiec, 2021). The labour market has shown how a crisis will cause widespread changes in individual behaviour. Priorities of needs change, and the ways of satisfying them change. Companies present in the market, if they do not perceive the need to adapt to the ongoing changes, may not continue to exist (El Chaarani et al., 2021). These are the factors that will increase unemployment. In contrast, companies that take advantage of the demands of ongoing changes to innovate production processes will have a shortage of skilled labour. Because of the acceleration of these changes, the competition in the labour market will increase on both the supply and demand sides. This could manifest availability of flexible forms of employment, opportunities for retraining and higher performance appraisals (Borodiyenko et al., 2021).

3. RESEARCH OBJECTIVE, METHODOLOGY AND DATA

For this paper, primary data obtained through a questionnaire survey conducted in the period November 2020 through October 2021 are used. This survey was aimed at identifying subjective responses to questions asked about the impact of the COVID-19 pandemic on the economic and social aspects of individuals' lives. Data collection was conducted online by sharing a link to Google Forms and in person for individuals unreachable online (such as old-age pensioners). The sample consists of a representative sample of 3,079 respondents and the use of 7 quotas to identify respondents. The structure of the sample is presented in Table 1.

Tab. 1 – Sampling frame (N = 3079). Source: own research

Gender		Economic activity	
Male	48.04%	Full-time employee	45.08%
Female	51.96%	Part-time employee	3.61%
Age		Entrepreneur, self-employed	9.19%

18–26	21.72%	Unemployed	2.99%
27–35	16.11%	Student	6.59%
36–50	25.98%	Retired pensioner	27.93%
51–65	15.26%	Household (parental or maternity leave)	3.31%
Over 65	20.92%	Other	1.30%
Household type		Education	
Single adult	16.69%	Primary	0.49%
Two adults without children	39.49%	Lower secondary education	13.45%
Other households without children	2.18%	Upper secondary education	62.65%
Two adults with one child	3.02%	Post-secondary (non-tertiary education)	2.57%
Two adults with two children	18.09%	Bachelor's degree	7.08%
Two adults with three or more children	4.61%	Master's or Engineering degree	12.60%
Other households with children	2.47%	University doctorate	1.17%
Average monthly net income (CZK)		Municipality size	
Up to 20,000	21.86%	Less than 5,000 inhabitants	32.77%
20,001–40,000	41.96%	5,000 – 49,999 inhabitants	34.26%
40,001–60,000	22.96%	50,000 inhabitants and over	32.97%
60,001–80,000	7.76%		
Over 80,000	5.46%		

The impact of the pandemic on individuals' lives is examined by subjective assessments of their perception of their living situation before and during the pandemic. The hypotheses are as follows (Xiong et al., 2020; Naveed et al., 2022; MacGee et al., 2022; Findling et al., 2021):

H0: Individuals' perceptions of aspects of life before and during the pandemic have not changed.

HA: Individuals' perceptions of aspects of life before and during the pandemic have changed.

Hypotheses regarding specific aspects of life are detailed in Tab 2. The aspects of life assessed, selected based on the literature presented, are the following: social contacts (such as time with family and friends or sitting in a restaurant), creating financial savings, ability to pay bills (such as rent or mortgage), coping with stress, staying healthy and being able to use leisure time freely. Respondents used a 5-point scale to express the importance of each variable (1—least important, 5—most important). The Wilcoxon test is used to assess changes in the perception of one's situation under the influence of the pandemic, with the null hypothesis that there is no dependence in the evaluation of a given aspect of life before and during the pandemic (at a significance level of $\alpha = 0.05$).

To identify competitive segments in the labour market during the pandemic, a multivariate statistical method, cluster analysis (specifically, the hierarchical clustering method), is applied.

Clusters are formed based on similarities and differences. The similarity measure is based on the Euclidean distance of the objects, that is, respondents entering the analysis. The clustering process starts with the identification and subsequent merging of the clusters that are closest. This iterative process continues until all clusters are connected (Hebák et al., 2015).

Cluster analysis is used to create segments of individuals with similar perceptions of the situation according to eight variables: respondents' perceptions of the pandemic, respondents' attitudes towards the use of online communication tools, changes in income due to the pandemic, problems in employment or business, the use of teleworking and respondents' level of agreement in three domains of pandemic life (available information regarding pandemic measures, negative effects of the pandemic on the psyche and suitability of pandemic work arrangements). Cluster analysis is performed separately for the groups of employees, entrepreneurs and unemployed individuals.

4. RESULTS AND DISCUSSION

The large sample survey made it possible to work with a data set of 49% employees, 28% senior citizens, 9% entrepreneurs (self-employed), 7% students, 3% unemployed people and the remaining approximately 4% are others. Considering the subject of the analyses carried out on the behaviour of individuals during the pandemic mainly in relation to the labour market, this structure of the population, which, in terms of economic activity, corresponds to the basic structure of individuals in the Czech Republic where the survey was carried out, is important. When asked whether the pandemic has meant or means problems for them in their jobs, 73% of the group of employees answered that they do not face any problems, 15% face partial problems (mainly related to salary level), 8% answered that they are better off in terms of salary during the pandemic and only 4% answered that they had to find another job. Therefore, the situation of the employees cannot be described as critical. For the group of entrepreneurs (self-employed), which represents about 300 respondents in absolute numbers, 52% answered that they do not face any problems, 36% answered that they face problems such as paying rent, taxes and lack of labour due to taking care of a family member or quarantine, 9% answered that they lost their trade and had to switch to another line of activity and 3% are better off financially during the pandemic. Similar to that stated by Berke-Berga et al. (2021), a pandemic brings with it both pitfalls and opportunities and competitive individuals should strive to take advantage of these opportunities. Simultaneously, this group of respondents (that is, entrepreneurs) reported that 28% take advantage of tax breaks, 12% take advantage of wage allowances, 9.7% take advantage of acknowledged rent opportunities, less than 3% take advantage of soft loans and 47% take advantage of government compensation. Businesses have been forced to compete for limited government assistance in the Czech Republic in a similar way as those abroad (Kubera & Kwiatkowska, 2021). COVID-19 will have negative impacts on government budgets in the long term (Bifulco & Lewis, 2020).

Approximately 65% of all respondents take the pandemic cautiously to seriously, approximately 27% do not care about the pandemic or do not take it seriously, and the remainder does not have a strong opinion. A more detailed look at the behaviour of respondents shows that three-quarters

of them are not satisfied with the way the government communicates about the pandemic, and the way they speak about the measures shows that they actually distrust government communication. At the time of the survey (when vaccination was still only being discussed), roughly 60% of respondents answered that they would be vaccinated if a vaccine was developed, which in present terms is consistent with the number of those vaccinated (European Centre for Disease Prevention and Control, 2022). Most respondents are bothered by the fact that they are unable to pursue their hobbies and cultural activities during the pandemic measures taken. Certain respondents do not like the method of work or study organisation adopted during the pandemic.

More detailed questions about online communication made it possible to determine people's opinions and verify both their ability to use online communication in the labour market and their ability to adapt to new ways of communication. Online communication not only allows for the virtually constant availability of the worker but also suggests the ability to use the necessary technical facilities. The sample was representative regarding age, yet three-quarters of respondents answered that they are comfortable with online communication, some completely (39%) and some only partially (35%). Individuals who have been able to start communicating online can be described as competitive because they have been able to adapt, which Fedchenko & Danker (2015) see as the basis of an individual's competitiveness. 5% of respondents are bothered by the fact that they do not have leisure time and are always available, and 13% do not use these facilities (do not want to or cannot). From the point of view of the expected development of information technology, this stratification of the population can be judged as satisfactory. Not only are individuals forced to learn how to use online means of communication in order to remain competitive in the labour market, but this situation also presents opportunities in the form of the possibility of employees working completely online and as freelancers (Stephany et al., 2020).

4.1 Evaluating aspects of life between periods

In the survey, respondents commented on six selected aspects of their lives that they evaluated in two periods – retrospectively (that is, before the pandemic) and presently (on a scale of 1 – least important, 5 – most important. These findings are summarised in Table 2.

Tab. 2 – Respondents' ratings of selected aspects of their lives before the pandemic and now. Results of the Wilcoxon paired-samples sign test. Source: own research

Aspects of life	Period	1	2	3	4	5
Social contacts	before the pandemic	4.25 %	4.22 %	19.91 %	29.81 %	41.80 %
	now	5.07 %	5.39 %	16.69 %	24.13 %	48.72 %
H0: The median of differences between social contacts before and social contacts present equals 0. Significance: 0.000 Test Statistics: 645.000						
Creation of financial savings	Before the pandemic	7.24 %	20.10 %	34.10 %	25.11 %	13.45 %
	now	6.92 %	18.38 %	23.97 %	22.28 %	28.45 %

H0: The median of the differences between the creation of financial savings before and the creation of fin. Savings present equals 0. Significance: 0.000 Test Statistics: 926.000						
Ability to pay bills (rent, mortgage)	Before the pandemic	14.81 %	7.47 %	18.90 %	28.39 %	30.43 %
	now	13.41 %	7.21 %	15.10 %	26.79 %	37.48 %
H0: The median of differences between the ability to pay bills before and the ability to pay bills present equals 0. Significance: 0.000 Test Statistics: 535.000						
Coping with stress	Before the pandemic	4.09 %	20.62 %	36.31 %	25.43 %	13.54 %
	now	3.02 %	14.26 %	21.70 %	31.15 %	29.88 %
H0: The median of differences between coping with stress before and coping with stress present equals 0. Significance: 0.000 Test Statistics: 1207.000						
Staying healthy	Before the pandemic	4.06 %	4.81 %	21.83 %	16.27 %	53.04 %
	now	4.35 %	1.95 %	10.20 %	15.17 %	68.33 %
H0: The median of differences between staying healthy before and staying healthy present equals 0. Significance: 0.000 Test Statistics: 750.000						
Leisure time	Before the pandemic	4.09 %	14.97 %	33.52 %	21.99 %	25.43 %
	now	6.50 %	13.77 %	33.00 %	20.17 %	26.57 %
H0: The median of differences between leisure time before and leisure time present equals 0. Significance: 0.523 Test Statistics: 551.000						

From the frequencies of each level of importance, it can be concluded that social contacts before the pandemic were taken for granted by the respondents and that they did not attach much importance to them. With the arrival of the pandemic and the government measures, this perception has changed considerably. Government measures and recommendations for social distancing are supported by studies, such as Andrasfay et al. (2022), demonstrating a relationship between ongoing social engagement and the risk of infection. Despite this, respondents are bothered both by not being able to meet with family and friends and by not being able to attend social events.

Similar behaviour can be observed in the perception of financial situations, especially in creating financial savings. Before the pandemic, savings were not treated as the most crucial factor for the future. The change came along with the pandemic; respondents became concerned about their financial situation, which is following the findings of MacGee et al. (2022). Owosu & Ukhova (2020) reported that individuals now save more because of insecurity. In paying amounts owed

and making mandatory payments, the difference in importance is far less; a sense of responsibility to the obligation of payments was evident even before the pandemic, with some difference in the indication of importance likely being influenced by the character traits of the individual. The pandemic has shown that in times of acute threat of Covid, health care is the most important component of people's lives. The proportion of individuals who perceive the item 'staying healthy' as the most important (grade 5) has increased, which is consistent with Hansel et al. (2022). As Fedchenko & Danker (2015) state, physical and mental health is a prerequisite for the competitiveness of individuals in the labour market.

The distribution of the scale scores related to stress management was rated around the mean digit of the scale, with importance ratings of 2, 3 and 4. During a pandemic, respondents behave differently: the importance increases. Different findings were presented by Xiong (2020), who applied the question of stress only to those who had lost their jobs or had been quarantined for a long time. Han & Sa (2022) point out that individuals succumb to stress because of the need for social distancing and recommend reducing stress by practising hobbies and actively spending leisure time. However, they admit that this is not always possible in times of pandemic constraints. Alternatively, the data from the Czech respondents here do not show a conclusive difference in the perceived importance of leisure before the pandemic and now.

The question of whether individual aspects of one's living situation or their importance are perceived differently by the respondents, with the possibility of labelling this difference as conclusive, can be answered by the results of the Wilcoxon test – see Table 2. The results show that, except for leisure time, there was a statistically significant difference between the ratings of all items of the selected aspects of life in (sig. < 0.05). According to the standardised values of the test criteria, the greatest increase in ratings occurred for 'coping with stress'. The aspect of leisure time did not show a conclusive difference during the pandemic. Although when asked what government measures they were dissatisfied with, most respondents cited restrictions on leisure opportunities.

4.2 Segments of the labour market

Understanding an individual's perception of the changes taking place and using cluster analysis as a tool to identify similarities in individuals' behaviour allows for the identification of groups of individuals in terms of their competitiveness in the pandemic labour market; this also relates to the changes examined above regarding stress management and other aspects of quality of life that have changed due to the pandemic.

Within the labour market in the pandemic era, based on the behaviour and opinions of individuals, it was possible to identify several segments from the groups of currently economically active individuals, namely, three segments of employees, two segments of entrepreneurs and two segments of unemployed individuals. For each segment, the most frequent categories of variables reflecting the behaviour of individuals during the pandemic, which were essential in the application of cluster analysis, were then summarised, followed by the most frequent demographic and socioeconomic characteristics of individuals belonging to the segment (Figure 1-3).

The first segment, which includes young individuals from larger cities, can be described as a competitive segment. It includes flexible individuals who began working from home during the pandemic and have become accustomed to this change. Indeed, working from home was encouraged by governments, to which companies had to respond and allow or mandate employees to work from home (Dvorak et al., 2020). The challenge for employees was to adapt to this change. As Mungiu (2019) confirms, individuals capable of adaptation may be described as competitive. This change in the location of employment should not only be perceived negatively but also perceived as an opportunity; for example, Heggeness & Fields (2020) point out the possible care of children who are often forced to stay at home because of the pandemic situation in schools. Some companies are even switching to permanent teleworking for certain employees. Still, many companies do not plan to implement teleworking permanently, as they are aware of the benefits of the office for employees (Licite-Kurbe & Leonovica, 2021). The second segment does not work from home during the pandemic. They do not have problems at work, but they feel the negative effects of the pandemic on their psyche. These are older individuals living with children. The third segment includes the 'refusers' who do not perceive the pandemic as a risk and do not have enough information about the pandemic situation. These are middle-aged individuals from smaller communities. They do not accept changes because they perceive the pandemic work organisation as unsuitable. Thus, individuals from the third segment cannot be identified as competitive.

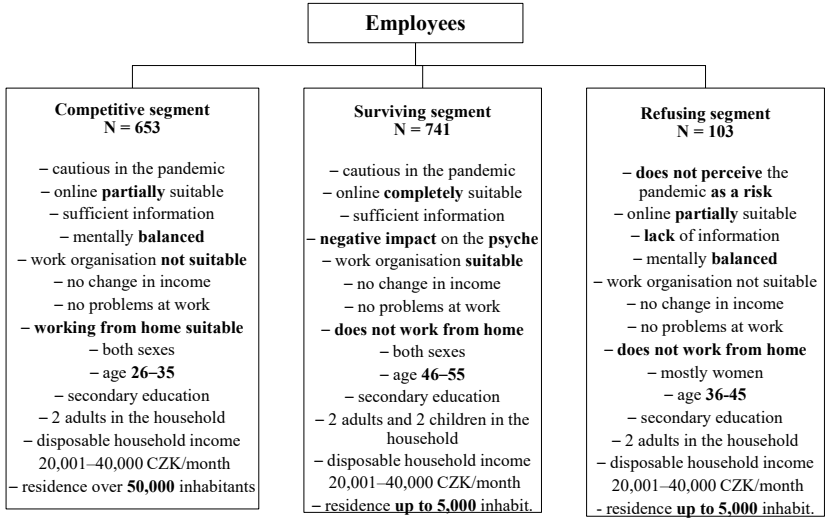

Fig. 1 – Segments of employees in the pandemic labour market. Source: own research

All segments of employees (Figure 1) expect their household income as a result of the pandemic to remain unchanged; this is not consistent with the conclusions of the Eurostat study (Eurostat, 2020), which reports a slight decrease in the income of individuals in the first pandemic year mainly due to absenteeism and reduced hours of activity, especially in the accommodation sector and food services. Only one segment of entrepreneurs expects a decrease in income (Figure 2).

Entrepreneurs need to respond quickly to changes in the market in which they operate. However, a pandemic can bring about dramatic changes. Entrepreneurs can expect support from the state, but as Kubera & Kwiatkowska (2021) point out, public resources are limited. Therefore, entrepreneurs are forced to look for new opportunities in emerging situations and to have contingency plans in place for business sustainability (Berke-Berga et al., 2021). Entrepreneurs must become used to reacting to changes and adapting to new market situations; for example, online communication suits entrepreneurs completely, as they can adapt, but this is only partly true for most employees (Figure 1).

One segment of entrepreneurs expects a decrease in income and does not work from home (Figure 2). The other segment does not expect a change in income; they worked from home and stated that they were as productive at home as they were in the office. The second segment, better able to adapt to the pandemic market situation, is represented mostly by middle-aged men who have attained a university degree and live in larger cities. The segment of flexible entrepreneurs can be identified as competitive due to their ability to respond to change and seek opportunities. As Pantano et al. (2020) mention, competitive entrepreneurs can react immediately to an emergency, while other entrepreneurs need more time.

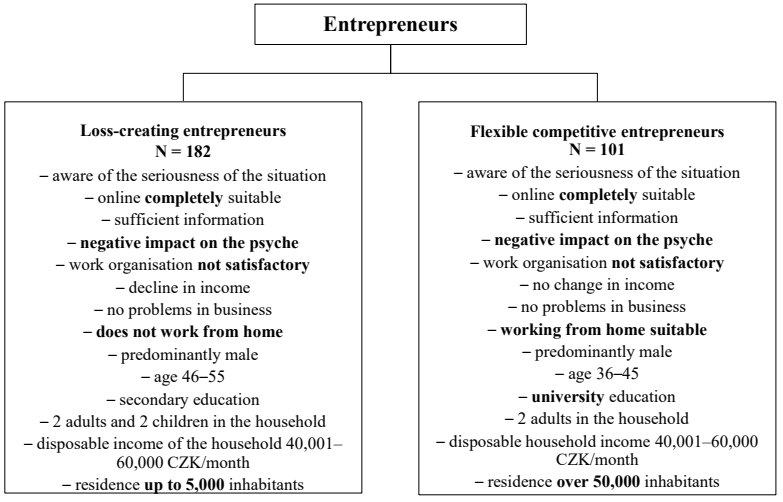

Fig. 2 – Segments of entrepreneurs in the pandemic labour market. Source: own research

One segment of the unemployed group is represented by fearless and disaffected individuals who do not perceive the pandemic as a risk. Both segments are uncomfortable with the work organisation during the pandemic, which is expected when they have lost their jobs and have not yet been able to find another. The second segment is called 'Covid victims', as they feel the negative effects of the pandemic on their psyche, and they realise the seriousness of the situation. Job loss may result from lockdowns implemented due to the pandemic, similar to the U.S., where the pandemic increased the unemployment rate to nearly 15% in the fall of 2020 (Bureau of Labor Statistics, 2020). The unemployed are only partially comfortable with online communication. They should work on this online aspect to increase their competitiveness; in

general, information and communication technologies are used in all sectors of employment and business (Sawangchai et al., 2020).

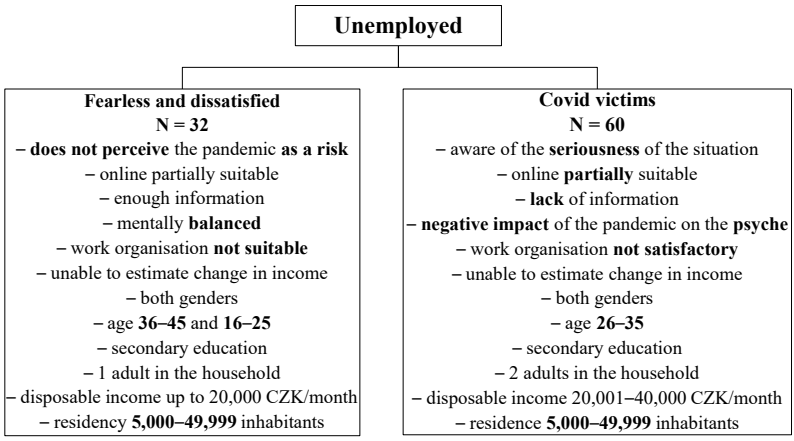

Fig. 3 – Segments of the unemployed in the pandemic labour market. Source: own research

Generally, unemployed segments are not identified as competitive; however, some exceptions (that is, competitive individuals) can be covered in the unemployed segments for a short time. Competitive individuals currently unemployed will try entering the competitive segments of employees or entrepreneurs as soon as possible. According to Fedchenko & Danker (2015) or Mungiu (2019), this depends mainly on their flexibility, adaptability to the new challenges of the labour market and their physical and mental health.

5. CONCLUSION

To understand the manifestations of changes in the labour market behaviour of economically active individuals due to the COVID-19 pandemic, a representative survey was conducted among 3,079 respondents. The main identifying feature was the economic activity of the individual; this allowed not only the analysis of the behaviour of individuals, but also a comparison of the behaviour of groups of employees, entrepreneurs (self-employed) and unemployed individuals. From the results of the survey for the group of employees, three-quarters answered that the pandemic did not cause them problems at work or financial problems; the same number had no problems with online communication or working from home, so their situation cannot be considered critical. Half of the group of entrepreneurs did not experience problems, while almost a tenth of this group had to close their businesses. Of the entrepreneurs, 36% experienced problems and welcomed government compensation or tax relief. Therefore, the pandemic brought numerous challenges but also opportunities for individuals of all categories of economic activity and revealed which individuals are able to adapt, seize opportunities and become competitive.

Respondents' perceptions of the impact of the pandemic on the importance of selected aspects of their quality of life, such as social contacts and the ability to create financial savings, pay

bills, cope with stress, stay healthy and spend their leisure time freely, were evident from their responses to the pre-pandemic and pandemic conditions. Using a test to verify the hypothesis of the significance of the difference in perception of selected aspects of life (sig. < 0.05) for all variables except leisure time, a significant difference emerged.

The examined aspects of individuals' quality of life and their changes during the pandemic shape individuals' psychological state and, subsequently, attitude toward work organisation. The attitude to work organisation and other factors were applied in the cluster analysis and determined segments of individuals for the groups of employees, entrepreneurs and unemployed individuals. The employee group comprised three segments. The first segment can be depicted as a segment of competitive individuals who are able to communicate online and work from home, mentally balanced, experiencing no change in income, living in municipalities with a population above 50 thousand inhabitants. The segment of surviving individuals is also cautious about the pandemic but with a negative impact on the psyche, living mostly in municipalities under 5000 inhabitants and not working from home. The segment of refusing individuals do not perceive the pandemic as a risk, do not have enough information, find the organisation of work does not suit them, do not work from home, and live in communities of up to 5,000 inhabitants. The group of entrepreneurs comprised two segments. The segment called Loss-creating entrepreneurs differs from the flexible entrepreneurs mainly in terms of a decline in income, higher age and place of residence in municipalities with a population of less than 5,000. Flexible entrepreneurs are competitive and able to react to the current situation in the market. Therefore, they have no change in income and no problems in their business. They are college educated, and they reside in municipalities with a population of over 50 thousand. The unemployed group comprises two segments: the fearless and dissatisfied and the Covid victims. The first segment does not consider the pandemic as a risk. They are uncompetitive because they are unable to even identify the change, let alone react to it. The second segment realises the seriousness of the situation, and they experience a strong impact on their psyche.

According to the results of the representative survey, most employees and entrepreneurs took the pandemic seriously and accepted government measures; roughly the same number declared their willingness to be vaccinated. Three-quarters of employees appreciated the receptivity to work at home and that Covid did not affect their income. Entrepreneurs welcomed all forms of government financial support, yet approximately half of them faced financial problems, and some faced existential problems. By understanding the behaviour of both individuals and companies, it can be concluded that the initial stage of the crisis was manageable.

The contributions of the paper include the following: the overview of how the pandemic situation is perceived from the perspective of individuals active in the labour market, the overview of aspects of individuals' lives that changed and, last but not least, the identification of segments of individuals in the labour market and the identification of those who are competitive. The focus on the Czech Republic may be seen as a limitation of this study. In the future, it will be possible to extend the research and include respondents from other countries. Subsequently, the comparison of situations in the labour markets of different countries can be conducted according to the segmentation model proposed here in the pilot study on a representative data set of Czech respondents.

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