

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Trade and Finance



Bachelor Thesis

The Impact of COVID-19 on the Economy of the Czech Republic.

Botakoz Daulet

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

abs. v. š. Botakoz Daulet

Economics Policy and Administration
Business Administration

Thesis title

The Impact of Covid-19 on the Economy of the Czech Republic

Objectives of thesis

The main objective of the bachelor thesis based on the methods used is to evaluate two different periods of the Czech economy (before and during the pandemic) and to find out which economic indicators were significantly affected and which of them remained unchanged.

Other objectives are as follows:

- a) Evaluate the survey among selected Czech entrepreneurs in terms of how the situation of COVID affects small companies.
- b) Assess the situation of small business before and after the global pandemic by comparison.

Methodology

This thesis consist of three main parts.

Literature review provide analyse of Czech economy before global pandemic and after. During this part author will provide information about Czech banking sector and key sectors in the Czech Republic. At the same time, theoretical part will reflect trade situation, which includes manufacturing sector. All data will be based on scientific research and official government statistic.

Practical part will be based on qualitative and quantitative research. The survey will be provided among Czech entrepreneurs of the small business. Author will perform results in pie chart, diagrams, cross tabulation, etc.

In the last part – results and discussion, author give overview of both parts and provide recommendation on future planning.

The proposed extent of the thesis

30-40 pages

Keywords

key words: COVID-19, economic, small business, global pandemic, entrepreneur, key sectors, Czech Republic, banking, trade

Recommended information sources

- Alexa, J., Rečka, L., Votápková, J., van Ginneken, E., Spranger, A., & Wittenbecher, F. (2015). Czech Republic: health system review.
- Berkowitz, D., Hoekstra, M., & Schoors, K. (2014). Bank privatization, finance, and growth. *Journal of Development Economics*, 110, 93-106.
- Hájková, D., Hanousek, J., & Němeček, L. (2002). The Czech Republic's banking sector: Emerging from turbulent times. *EIB papers*, 7(1), 55-72.
- Hodula, M., Macháček, M., & Melecký, A. (2020). Placing the Czech shadow banking sector under the light.
- Komenda, M., Bulhart, V., Karolyi, M., Jarkovský, J., Mužík, J., Májek, O., ... & Macková, B. (2020). Complex Reporting of the COVID-19 Epidemic in the Czech Republic: Use of an Interactive Web-Based App in Practice. *Journal of Medical Internet Research*, 22(5), e19367.
- REINERT, K A. *An introduction to international economics : new perspectives on the world economy*. Cambridge: Cambridge University Press, 2021. ISBN 978-1-108-45516-9.
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The Bachelor Thesis Supervisor

Ing. Olga Regnerová, Ph.D.

Supervising department

Department of Trade and Finance

Electronic approval: 11. 3. 2022

prof. Ing. Luboš Smutka, Ph.D.

Head of department

Electronic approval: 14. 3. 2022

doc. Ing. Tomáš Šubrt, Ph.D.

Dean

Prague on 15. 03. 2022

Declaration

I declare that I have worked on my bachelor thesis titled "The Impact of COVID-19 on the Economy of the Czech Republic." by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on 15.03.2022

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I would like to thank Ing. Olga Regnerová, Ph.D. and all other persons, for their advice and support during my work on this thesis.

The Impact of COVID-19 on the Economy of the Czech Republic

Abstract

The COVID-19 affected many almost everyone all over the world, in one way or the other. One of most such vulnerable group were small business. Small companies received support from the government; however, business confidence indicator was significantly decreased during the pandemic. Mainly affected areas in small business are services, entertainment, tourism and beauty sectors. There were businesses that did not function for a long time, while food business did not stop working at all. Another problem is that many companies had to adapt very quickly and implement online stores in order to supplement their income. The survey between owners of the small business showed that cost increased sometimes-about 15% and the trend to lay off employees for cost-cutting measures, mainly in 2021 led to an increase in unemployment in the country.

Keywords: COVID-19, economy, entrepreneurs, manufacturing, government support, business confidence, bank, loan, income.

Dopad COVID-19 na ekonomiku České republiky

Abstrakt

COVID-19 se tak či onak dotkl mnoha téměř všech lidí na celém světě. Jednou z nejzranitelnějších skupin byly malé podniky. Malým podnikům se dostalo podpory ze strany vlády, nicméně ukazatel podnikatelské důvěry se během pandemie výrazně snížil. V oblasti drobného podnikání byly postiženy především služby, zábava, cestovní ruch a kosmetika. Existovaly podniky, které dlouho nefungovaly, zatímco potravinářské podniky nepřestaly fungovat vůbec. Dalším problémem je, že mnoho podniků se muselo velmi rychle přizpůsobit a zavést internetové obchody, aby si doplnily příjmy. Průzkum mezi majiteli malých podniků ukázal, že náklady se zvýšily někdy až o 15 % a trend propouštět zaměstnance kvůli úsporným opatřením, hlavně v roce 2021, vedl k nárůstu nezaměstnanosti v zemi.

Klíčová slova: COVID-19, ekonomika, podnikatelé, výroba, vládní podpora, podnikatelská důvěra, banka, úvěr, příjem.

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1 Introduction

The first case of covid-19 in the Czech Republic was reported on March 1, 2020. The global pandemic started and affected the economy severely. In this bachelor thesis author will analyze the impact of COVID-19 on the Economy of the Czech Republic and along with performing a survey between owners of the small business in the Czech Republic.

This survey helps to reflect how entrepreneurs managed with current conditions. It is important to analyze if income has changed since the beginning of the pandemic and compare it with initial income. In addition, small business provides restricted income to the owners. As many businesses had to close their stores because of the state of emergency, many people had to leave their jobs. It led to increasing of unemployment rate, which is one of the major factor for a country's economic crisis. Another problem, which was noticed that not all entrepreneurs were able to adapt so fast. Not all of them implemented modern technologies and online stores. All these changes happened very quickly, so people did not have enough knowledge so far.

Because of all factors mentioned above it is important for governments to support small enterprises. Different programs were implemented in the Czech Republic, some of which, the author will describe in this thesis. However, some business-owners had to take loans from the banks. This factor was very important as Czech Banks play a huge role in the economy of the country.

To see the whole picture about conditions of small business in the Czech Republic, the survey was distributed among small business owners. The respondents gave answers regarding how their business was before COVID-19. With comprehension, it will be clearly visible, that the main factor, which influenced the most on businesses, was COVID-19 and induced restrictions. This survey will help to understand what kind of improvements and help are needed for supporting small businesses in different regions of the Czech Republic.

2 Objectives and Methodology

2.1 Objectives

The main objective is to compare two different periods of the Czech economy (before and during pandemic) and see what economic indicators have been greatly affected and which of them remained unchanged. Next objectives are following:

- a) Analyze survey among Czech entrepreneurs and perform how COVID situation affects the small business.
- b) Compare situation with small business before global pandemic and after it.

2.2 Methodology

This thesis consist of three main parts.

Literature review provide analyze of Czech economy before global pandemic and after. During this part author will provide information about Czech banking sector and key sectors in the Czech Republic. At the same time, theoretical part will reflect trade situation, which includes manufacturing sector. All data will be based on scientific research and official government statistic.

Practical part will be based on qualitative and quantitative research. The survey will be provided among Czech entrepreneurs of the small business. Author will perform results in pie chart, diagrams, cross tabulation, etc.

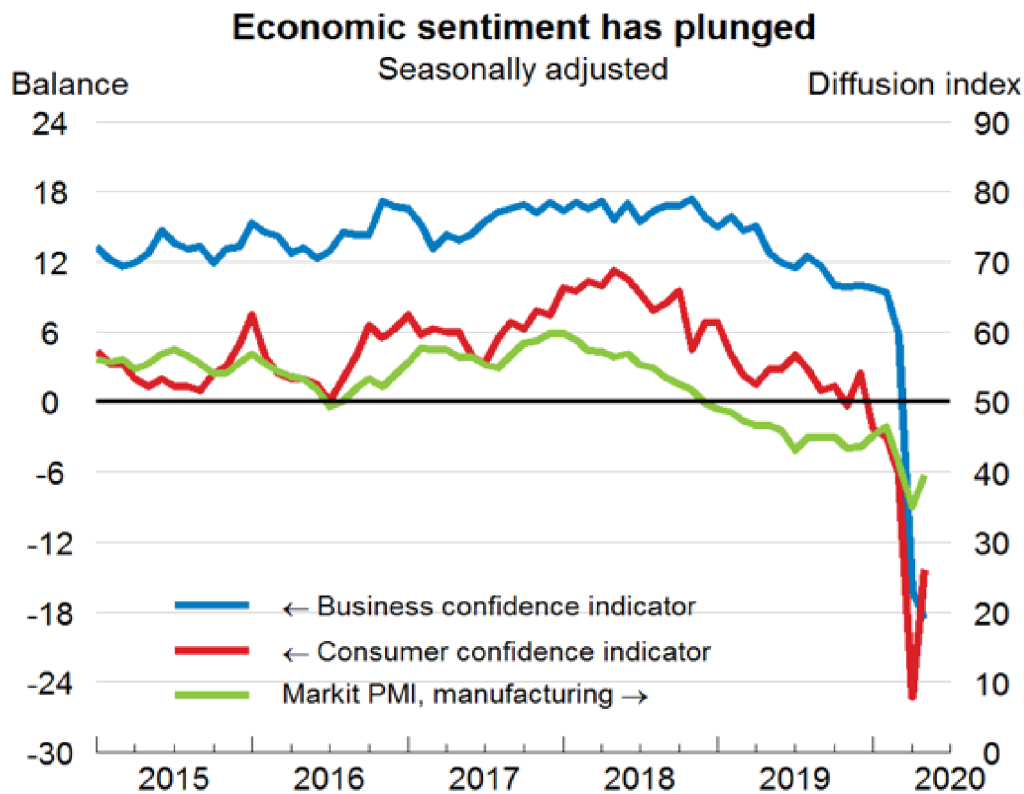
In the last part – results and discussion, author give overview of both parts and provide recommendation on future planning.

3 Literature Review

3.1 Czech economy before global pandemic

The figure below shows the situation in Czech market before Global pandemic and significant drop of two indicators in the end of 2019. Business confidence indicator as well as consumer number had positive balance and diffusion index (this index detect economic turning point) until COVID-19 started. The huge drop of the business confidence means that many entrepreneurs will close their business and it is not the favorable time for startup. The green line reflect PMI – Purchasing managers’ indexes, which are derived from monthly surveys of private sector companies. However, the decreasing tendency of the PMI and manufacturing has started before pandemic in 2018. In the end of 2019 the drop was not such significant as for two others indicators, however, the decrease is visible.

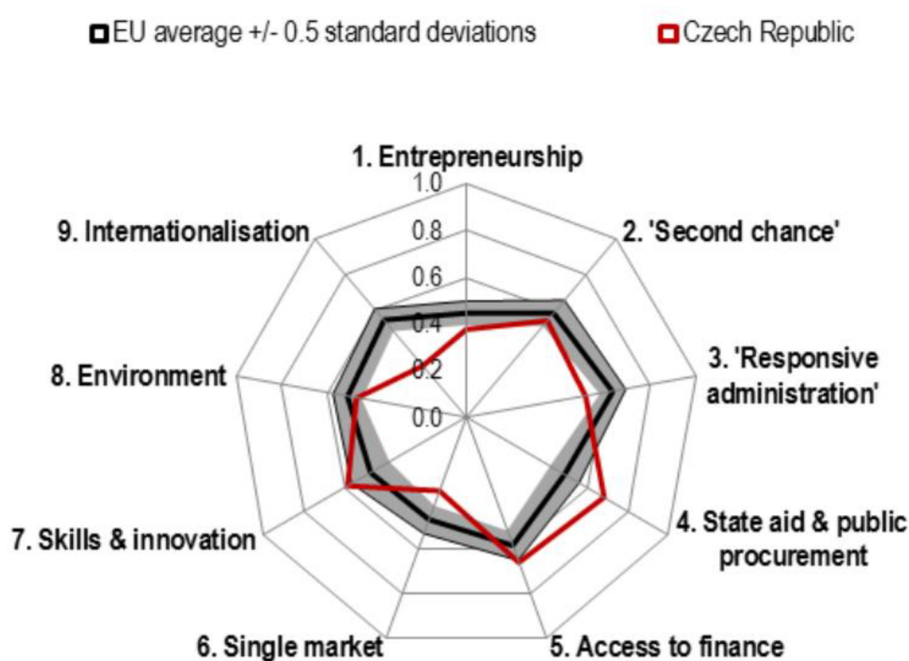
Figure 1 Economic Overview, Czechia



Source: OECD Economic Outlook 107 database; Czech Statistical Office; Markit

„Overall, the Czech Republic performs in line with the EU average. The country performs above the EU average in state aid & public procurement, skills & innovation (measured in the context of the SBA indicators exclusively) and access to finance. It performs below the EU average in entrepreneurship, ‘responsive administration’, single market and internationalisation. In ‘second chance’ and environment the country performs in line with the EU average. The country’s performance in single market and environment has deteriorated from the previous year“ (2018 SBA Fact Sheet, 2018).

Figure 2 Czech Republic and EU



Source: SBA Fact Sheet, 2018; p.4

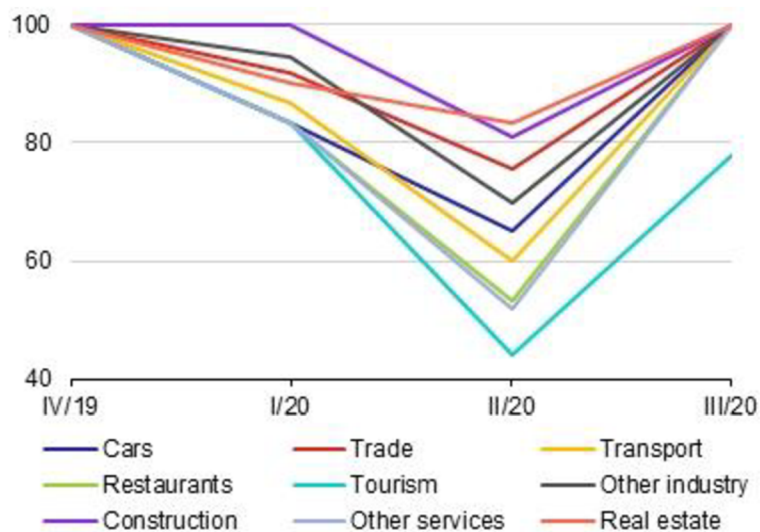
3.2 Czech economy during global pandemic

The first case of the coronavirus was confirmed in the Czech Republic on March 1, 2020 and nation-wide state of emergency was declared on 12 March. (Measures adopted by the Czech Government against the coronavirus | Government of the Czech Republic, 2022) During global pandemic country faced with many economical difficulties. GDP (Gross Domestic Product) was dropping by 6.8% in 2020. Recovering took place in 2021 by 1.5% and 3.3% in 2022. According to some calculation and predictions, GDP will stay below pre-crisis levels over the next two years

(Czech Republic: actively support business and employment to strengthen COVID-19 recovery - OECD, 2022).

Because the virus was spreading so fast, government made a decision to close all schools, restaurants, universities, salons, clothing stores, etc. These measures were necessary, but consequences are following: 40% of the Czech economy was affected. The big decline in the economy was in the first and second quarters in 2020. The main industries that suffered were mostly connected with services. The figure 2 represents the huge drop in tourism, restaurants, and services. Another group includes transport, cars, trade. The last group that had less decline includes construction and real estate. However, dynamic shows that all of them had recovered by the third quarter of 2020 (Direct impacts of the Covid-19 pandemic on the Czech economy - Czech National Bank, 2020).

Figure 3 Impacts of the Covid-19 pandemic on the Czech economy



Source: Direct impacts of the Covid-19 pandemic on the Czech economy - Czech National Bank, 2020

3.3 Understanding of small business

According to the European Commission and the EU Recommendation 2003/361 small business has up to 249 employees, at the same time, an annual turnover not exceeding € 50 million

or a balance sheet total not exceeding € 43 million (SME definition of the European Commission, 2022).

Table 1 Enterprise Category

Enterprise Category	Head count	Turnover	Balance sheet total
Medium-sized	<250	<= 50 million euro	<= 43 million euro
Small	<50	<= 10 million euro	<= 10 million euro
Micro	<10	<= 2 million euro	<= 2 million euro

Source: The European Commission Communication

There are five stages of growth in small business.

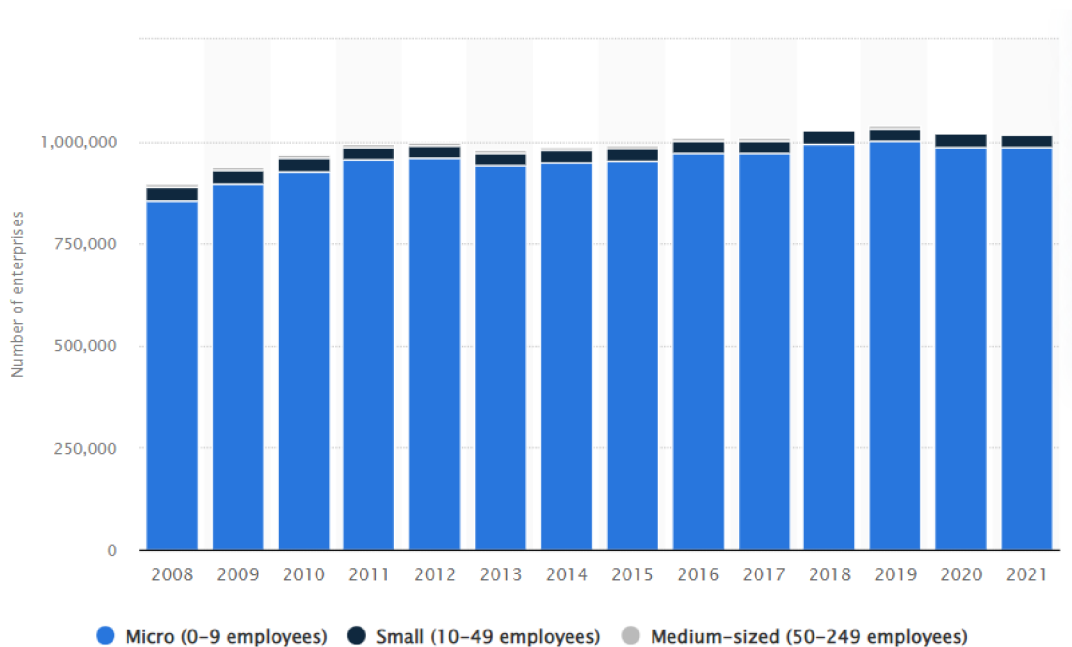
- **Inception** – the beginning of a new company along with skills of the founder. In this step company focus on profit and normally has high administrative demand. This stage is very uncertain.
- **Survival** – if small business reached this stage, there will be high probability that it will be workable business entity. Company should increase financing, bank overdrafts or short-term loans are common at this level.
- **Growth** – in this stage, company should be profitable and well developed. However, company will face with big data in accounting system and many competitors.
- **Expansion** – formalization of accounting system and centralization of administrative sector take place.
- **Maturity** – this is the stage when company most probably will be moving out of being small businesses. This stage is very important for the future growth of the company (Scott and Bruce, 1987).

3.3.1 Small business in the Czech Republic

The European Commission defines micro, small and medium-sized enterprises (SME definition of the European Commission, 2022). All of these enterprises are performed in the figure 4 in the period from 2008 until 2021 in the Czech Republic. The absolute majority is micro enterprises with 0-9 employees. In 2021, the amount of such enterprises reached 985,752. However, the amount of them before global pandemic took place was 1,001,554. Whereas medium sized business has decreased to 6,378 (it was 6,869 in 2019, before global pandemic) and small

business to 30,523 (amount of company was 32,229 in 2019). Total amount in 2019 was 1,040,652 enterprises and in 2021 – 1,022,653 enterprises.

Figure 4 Number of small and medium-sized enterprises (SMEs) in Czechia from 2008 to 2021, by size



Source: statista.com, by D. Clark, Jul 7, 2021

3.3.2 Manufacturing in the Czech Republic

Manufacturing can be described as the production of goods by from raw materials or parts, using tools, machinery and human labor by putting them through the respective manufacturing process. Therefore, these produced goods can be used by other manufacturers to use them for a further complex product, or otherwise these goods are sold in the tertiary market for the public to buy. The manufacturing process is an important and integral part of range of goods & products for example like, automobile, electronics, steel, household items and many more (Kenton, 2021).

Currently, China is the world's largest manufacturer country accounting to over 28.7% of the global manufacturing output, followed by United States, which accounts for 16.8% of the goods manufactured worldwide. Japan occupies the third place as the third largest manufacturer in the world with 7.5% of the global manufacturing happening in Japan (Richter, 2021). According to a research by macrotrends, in the year 2018, the Czech Republic ranks 30th in the global manufacturing output index with the value add of around \$56,552,130,000 as of 2018 ("Manufacturing Output by Country", 2018).

The manufacturing sector in the Czech Republic is an important part of its economy, contributing to 35% of the Czech economy. There are different manufacturer industries prominent in the Czech Republic, mainly because of its central European location, and abundant natural resources, it makes up as an important manufacturing hub being well connected with transportation. It serves as an important trading hub for countries like Germany, Russia and other countries both European and worldwide. The major manufacturing industries established in the Czech Republic include, but are not limited to the automobile industry, mining industry and chemical industries etc. ("The Czech Republic Has Been a Manufacturing Industry Leader for Decades", 2022). The automobile industry in particular is one of the most important manufacturer industries here, as more than 25% of the exports from the Czechia are automobiles. This particular industry also provides working opportunities to more than 120,000 people, along with contributing 9% to the total Czech GDP- Gross Domestic Product. (Kucirek, n.d.)

Due to its convenient manufacturing sector & location, the Czech Republic is also receives huge foreign investments in various sectors of its economy. The automobile sector is one of the major sectors here as various companies are interested in investing into the Czech automobile manufacturing for its cost cutting & abundant resource availabilities. There are many big auto manufacturers present in the Czech Republic such as Skoda, Hyundai, Mitsubishi and |Toyota including many more. Therefore, it attracts a lot of FDI (Foreign Direct Investments) opportunities in the automobile sector. In 2018, Czechia received \$ 11 billion in FDI, half of which was entirely in the auto sector, which showed a huge scope (Rugraff, 2009).

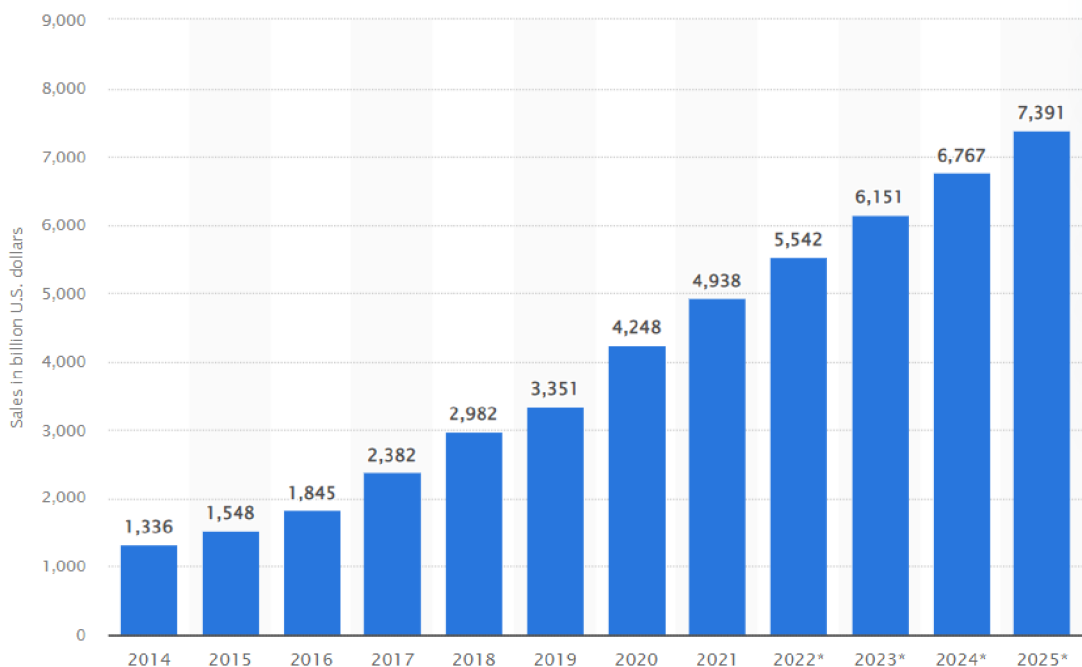
Recently, COVID-19 pandemic also affected the Czech manufacturing industry a lot, because of the worldwide and countrywide lockdowns; the industries also suffered a blow to its production. Majority of the companies had to halt their manufacturing processes due to the restrictions and protective measures ordered by the government. The electronics industry stopped making new components and this caused a shortage of these hardware parts & components in the market. In addition, as the global trade was also halted, the Czech automobile industry also was one of the sufferers because they had to shut down production units due to shortage of parts, which were imported from other countries (Andoh R., 2020). Overall, the Czech Republic witnessed a sharp fall in its economy, declining by 5.6% (Chan, 2021).

3.3.3 The role of the online stores

As it was mentioned above, many facilities were closed during the global pandemic in the Czech Republic. People did not have access to the physical stores. As this situation with the state of emergency was continuous and people concerned about their safety and health, they started buying many products online. However, people had focus mostly on medicaments, groceries, sanitizers, etc. People of all ages started to buy items digitally. Entrepreneurs had to adopt quickly and implemented digital sources so that customers could get their products (Gu et al., 2021).

The figure below shows retail e-commerce sales from 2014-2021 and with predictions from 2022 to 2025. The quantity of sales is increasing very fast. In the year 2019 sales amounted to 3,351 billion U.S. dollars and in the next year, after the COVID-19 breakdown, it was 4,248 billion U.S. dollars. This forecast is to grow by 50 percent over the next four years, reaching about 7.4 trillion dollars by 2025.

Figure 5 Retail e-commerce sales worldwide from 2014 to 2025



Source: Statista.com, published by Stephanie Chevalier, 2022

3.4 Czech banking sector

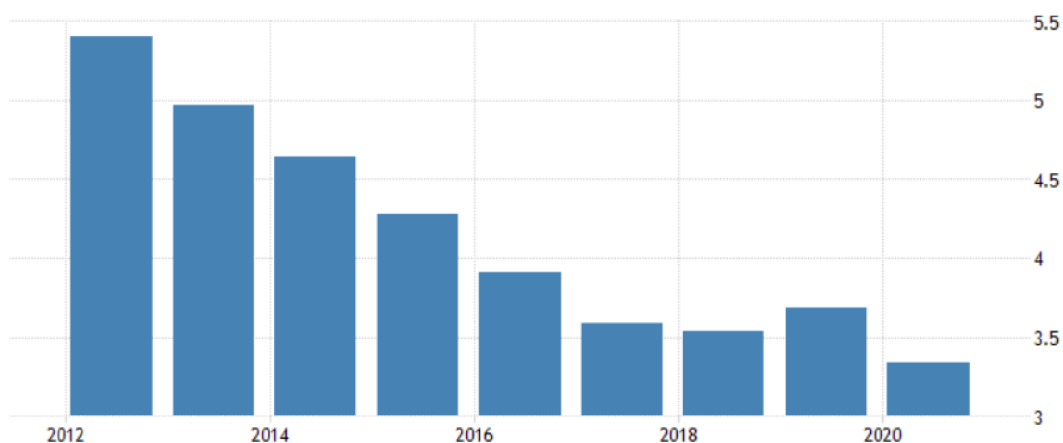
Small enterprises often have to take loan from the banks in order to start or develop business. It is the most popular and common way of external business financing. There is also a shortage of capital for companies seeking to operate, such as a change of ownership and control. Some of the companies trying to avoid financing gaps with lending from the bank (SME Financing Data Initiative—Building a Better Understanding of SME Financing, 2005).

During pandemic, many enterprises faced with problems of doing business because of restrictions. Entrepreneurs, who took loan, were not able to pay their debts, as they had to stop their activities (fully or partially) and they were not able to get any income. It is a tremendous influence on the economy of the country. The government of the Czech Republic has offered to pay CZK 15,000 per month to self-employed people affected by the measures for the duration of the measures.

In order to help people leading banks in the Czech Republic such as Česká spořitelna, Československá obchodní banka, Raiffeisenbank and Komerční banka offered their clients to request a mortgage or loan deferment for up to three months (Brecka, 2020).

Lending interest rate – is the amount, which is charged by lenders for a certain period. The values showed in a percentage of the amount lent or deposited (Standard, 2022). The trend of the lending interest rate was decreasing until 2019, where suddenly it increased and became equal about 3.7%. However, this rate had decreased by the year 2020 and it was equal to 3.3443%

Figure 6 Czech Republic - Lending Interest Rate



Source: Worldbank | Tradingeconomics.com

3.4 Key sectors in the Czech Republic

Traditional Czech Industries include following. Car production at 107.5 vehicles per 1,000 persons is well developed, with high skilled employees. Aviation focuses on production of complete aircrafts as well as of components for large transport and military aircrafts and helicopters. Engineering is an essential part of Czech economy, as 90% of all production are exported (mainly to the countries of the European Union). Environmental technologies also take place in the Czech Republic, for example 3D nanotechnologies and hydroelectric plants. Medical equipment was the most valuable during COVID-19. At current time this areas is increasing in volumes. Electronics and electrical engineering the second largest sector in the economy. Other sectors such as chemical and pharmaceutical, glass and ceramic, furniture, ICT sector, food etc. play very important role in the development of the Czech economy ("Traditional Czech Industrial Sectors", 2022).

4 Practical Part

4.1 Research Description

This study is based on an analysis of the survey results. The questionnaire consists of 15 questions. All questions are related to the state of small business in the Czech Republic. In general, the survey can be divided into three blocks: 1) questions about the state of business before the pandemic 2) the state of business after the pandemic; 3) general changes that took place during the period of Covid-19. A feature of this survey is the division of respondents by regions of the Czech Republic and business sectors. The author uses computerized statistical processing techniques to see differences across industries and regions.

This review helps me not only to analyze the current situation in the small business sector, but also to understand the main trends and prospects for the development of the sector. The author cannot claim the absolute accuracy of the results of the study, since a sociological study always has an error. Moreover, the author cannot say that every respondent in the sample answers as honestly and objectively as possible. However, the most favorable conditions were created for the survey. The anonymity of the respondents was ensured and they were not placed under a rigid time frame. In addition, descriptive statistical analysis is used in this research. Moreover, contingency tables are used too.

4.1.1 Respondent Sample

The choice of respondents was made according to two criteria: the presence of Czech citizenship and the presence of a small business. Age selection criteria were not established. since this factor does not affect the results of the survey. However, a question about the age of the respondents was included in the questionnaire solely to reveal the average age of the sample.

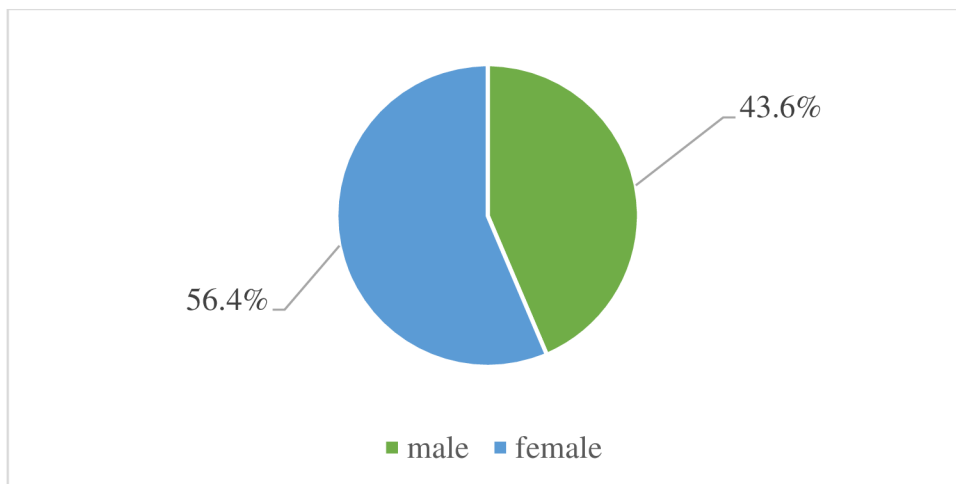
4.2 Interpreting survey results

The survey was conducted using Google Forms in January 2022. The survey was distributed using social networks such as Facebook, Instagram, as well as using Telegram and WhatsApp instant messengers. Further, the data was uploaded to Excel for statistical analysis and conversion into charts and histograms. Data dumping was also used in IBM SPSS Statistics to create crosstab tables.

4.2.1 General representation of the sample

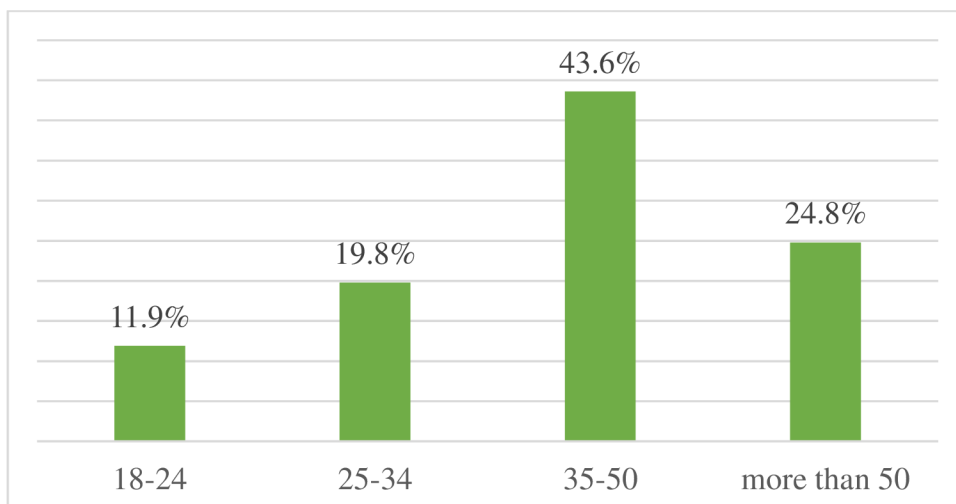
101 respondents took part in the survey. Men and women made up almost an equal percentage of the sample. The survey involved 56% of women and 43.6% of men. Most of the sample is made up of middle-aged people - from 35 to over 50 years old. In total, adults make up 68.4% of the total number of respondents. However, the survey represents the opinion of young business owners aged 18 to 34. Their opinion is 31.6% of the total number of respondents. In more detail, the data describing the sample is shown below on a pie chart (figure 7) and a histogram (figure 8).

Figure 7 What is your gender?



Source: (Authors own work; Google Forms; Excel, 2022)

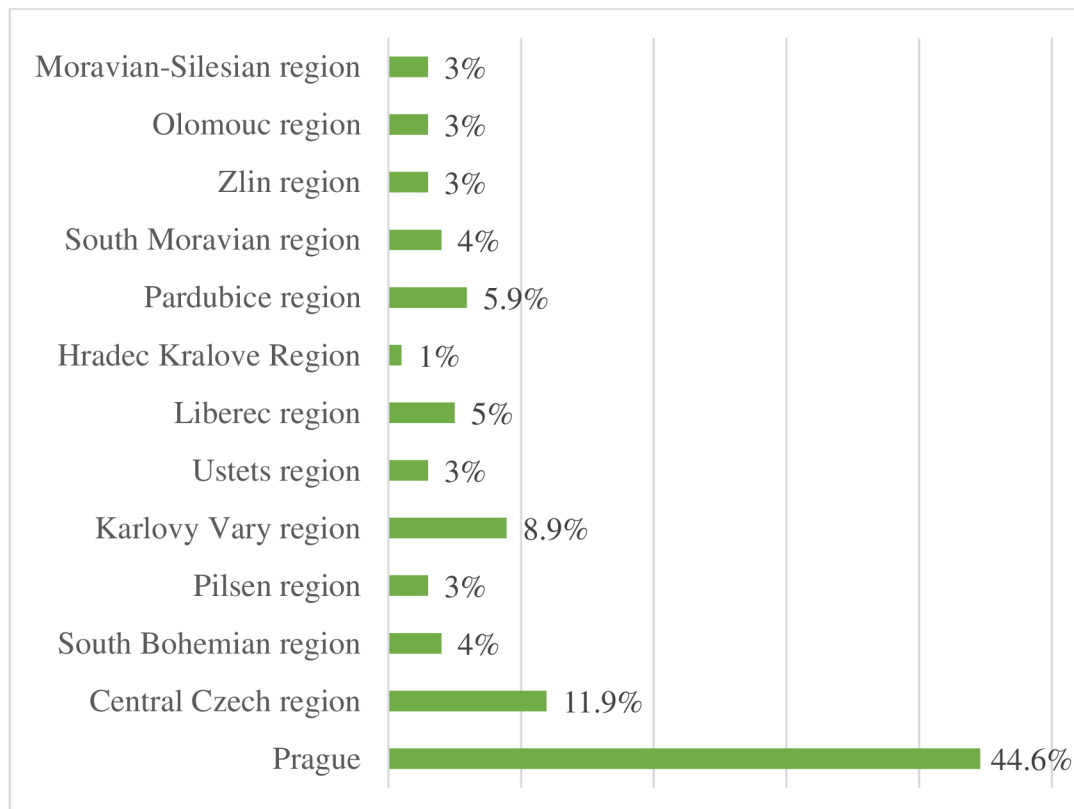
Figure 8 What is your age?



Source: (Authors own work; Google Forms; Excel, 2022)

For a more detailed study of the state of small businesses after the Covid-19 epidemic, the author included a question about the regional aspect. Subsequently, these data will be applied to the contingency table. As can be seen from the histogram below (figure 9), almost half of the respondents own a business in the capital of the Czech Republic - in Prague (45 people, 44.6% of respondents). The next most frequent answers are Central Czech region (12 people, 11.9% of respondents) and Karlovy Vary region (9 people, 8.9% of respondents).

Figure 9 In which region of the Czech Republic is your business located?

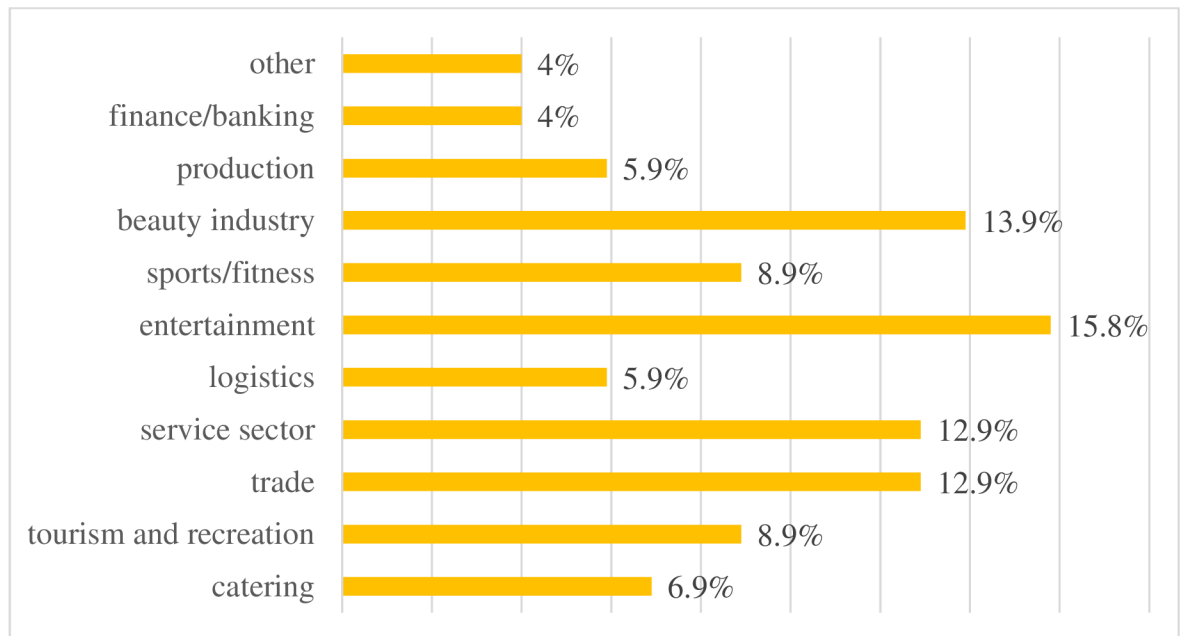


Source: (Authors own work; Google Forms; Excel, 2022)

The study includes not only the regional aspect, it also takes into account the type of business. In order to make a more detailed analysis, according to the author, it is better to make a correlation by small business sectors. Thanks to this decision, it will be possible to trace the main trends in the development of small business over the past two years. The entertainment industry has become the most common type of business. 16 people (15.8% of respondents) are owners of entertainment businesses. The next most frequent response was the beauty industry (14 people, 13.9% of respondents). The third place was shared between the service sector and the trade sector (13 people in each sector, 12.9% of the total number of respondents). Tourism and sports took

fourth place: 9 respondents each, 8.9% of responses. The listed areas and other business areas are shown in the histogram below (figure 10).

Figure 10 What is your business area?

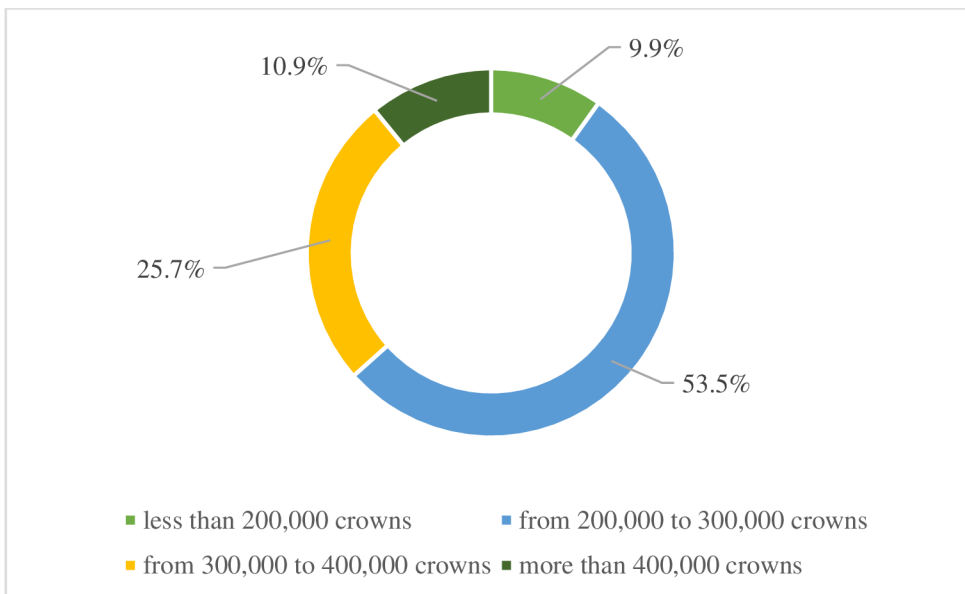


Source: (Authors own work; Google Forms; Excel, 2022)

4.2.2 Economic situation before the Covid19 epidemic and after

One of the main economic indicators of the success of a small business is the net monthly profit. The author decided to ask the respondents what was their average monthly income before the Covid-19 epidemic and what is their average monthly income at the moment. Comparing the two pie charts below (figures 11 and 12), a number of differences can be seen.

Figure 11 Before the Covid-19 pandemic, your average monthly income was:

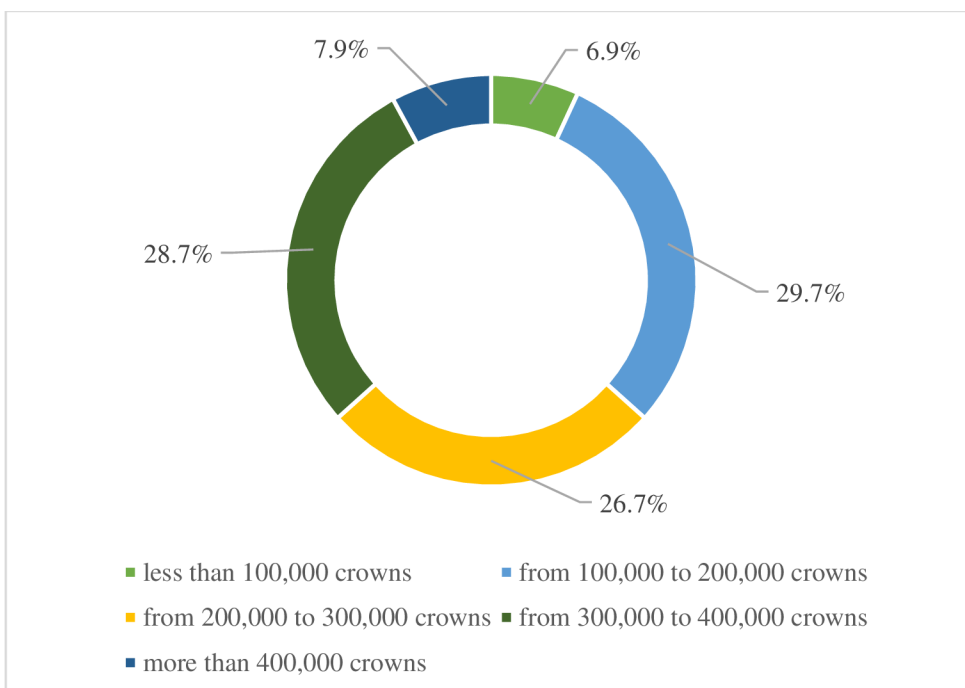


Source: (Authors own work; Google Forms; Excel, 2022)

For a more convenient analysis, this question has been converted into a cross table (table 2). Based on these data, the following trends are clearly visible.

Small businesses with the highest average monthly net income (from CZK 300,000 and above) for the most part maintained the same high income or even exceeded it (15 respondents, 14.85% of the total).

Figure 12 After the Covid-19 pandemic, your average monthly income is:



Source: (Authors own work; Google Forms; Excel, 2022)

Quite well preserved stability business with less net monthly profit. Thus, the owners of businesses receiving from CZK 200,000 to CZK 300,000 kept their earnings (16.83% of respondents) or even increased their income in the range from CZK 300,000 to CZK 400,000 (14.85% of the total).

However, in this category, as many as 22 people suffered losses in profits, sometimes even more than twice (21.78% of respondents).

Table 2 Cross table a

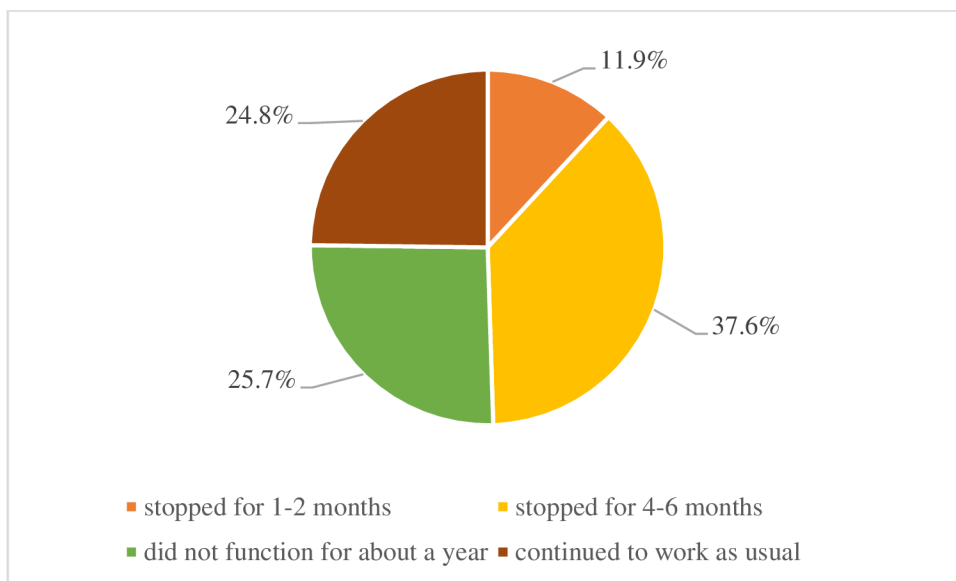
		After the Covid-19 pandemic, your average monthly income is:				
		a) less than 100,000 crowns	b) from 100,000 to 200,000 kroons	c) from 200,000 to 300,000 kroons	d) from 300,000 to 400,000 kroons	e) more than 400,000 kroons
Before the Covid-19 pandemic, your average monthly income was:	a) less than 200,000 crowns	4	4	2	0	0
	b) from 200,000 to 300,000 crowns	2	20	17	15	0
	c) from 300,000 to 400,000 crowns	0	4	7	11	4
	d) more than 400,000 crowns	1	2	1	3	4

Source: (Authors own work; IBM SPSS Statistics, 2022)

It is worth noting that during the pandemic, small businesses did not work for 4 to 6 months, as many as 38 respondents (37.6%) answered. Surprisingly, a rather large percentage of respondents noted that they had not worked for about a year. This answer was chosen by 26 people (25.7%). Perhaps such a long shutdown amid the Covid-19 pandemic is due to the fact that business owners in the fields of entertainment, beauty, sports and so on most participated in the survey.

It is worth noting that 1/4 (25 people, 24.8% of the total number of respondents) of the respondents continued to function as before. This applies most of all to the trade sector (probably the trade in food and essential goods, pharmacies and online trade). Another 11.9% (12 people) noted that their business was suspended for 1-2 months. The data is confirmed by the cross-tab below.

Figure 13 Have you had to stop working due to Covid-19? If yes, how long?



Source: (Authors own work; Google Forms; Excel, 2022)

4.2.3 Current working conditions

A good indicator of the functioning of a business is the flow of customers. In this matter, the owners practically do not note too strong and critical changes. Only 11 people noted a significant decrease in customer traffic and another 11 reported a significant increase in customer traffic (in both cases, the number is 10.9% of the total number of respondents).

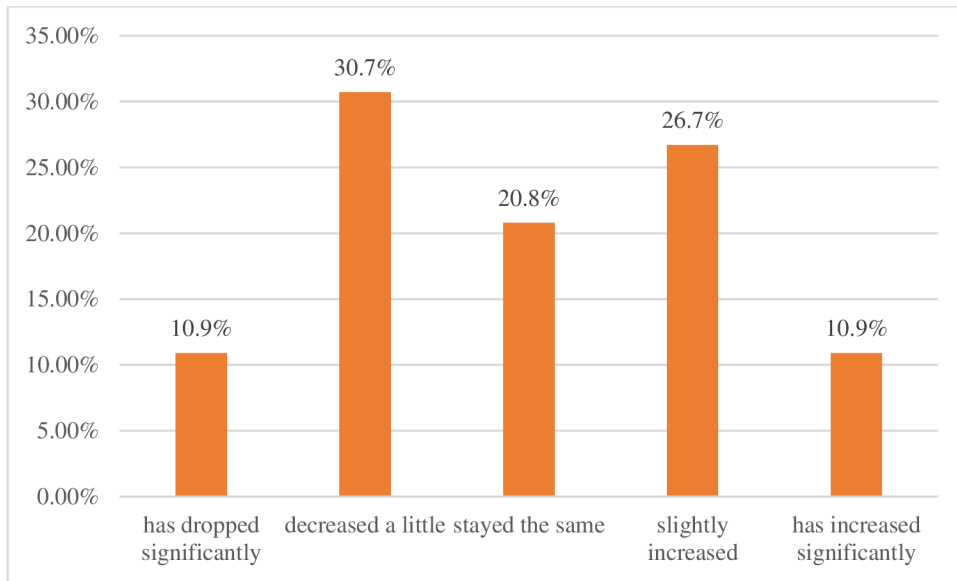
Table 3 Cross table b

		Have you had to stop working due to Covid-19? If yes, how long?			
		stopped for 1-2 months	stopped for 4-6 months	did not function for about a year	continued to work as usual
What is your business area?	catering	1	3	2	1
	tourism and recreation	1	1	5	2
	trade	2	1	2	8
	service sector	1	7	2	3
	logistics	2	0	1	3
	entertainment	2	8	6	0
	sports/fitness	1	4	4	0
	beauty industry	0	10	3	1
	production	1	2	0	3
	finance/banking	1	0	0	3
other	0	2	1	1	

Source: (Authors own work; IBM SPSS Statistics, 2022)

Despite the fact that there are not a lot of polar opinions on this question, nevertheless, the answers "decreased a little" and "raised a little" are quite popular. Still, the majority of those surveyed tend to believe that the flow of customers to their businesses has been reduced, albeit to a small extent. This option was chosen by 31 respondents (30.7%). However, according to the histogram above (figure 14) it is clearly seen that more than 1/4 of the responders note an increase in customer traffic (27 people, 26.7%). Also, 1/5 of the respondents did not notice any changes (21 people, 20.8%).

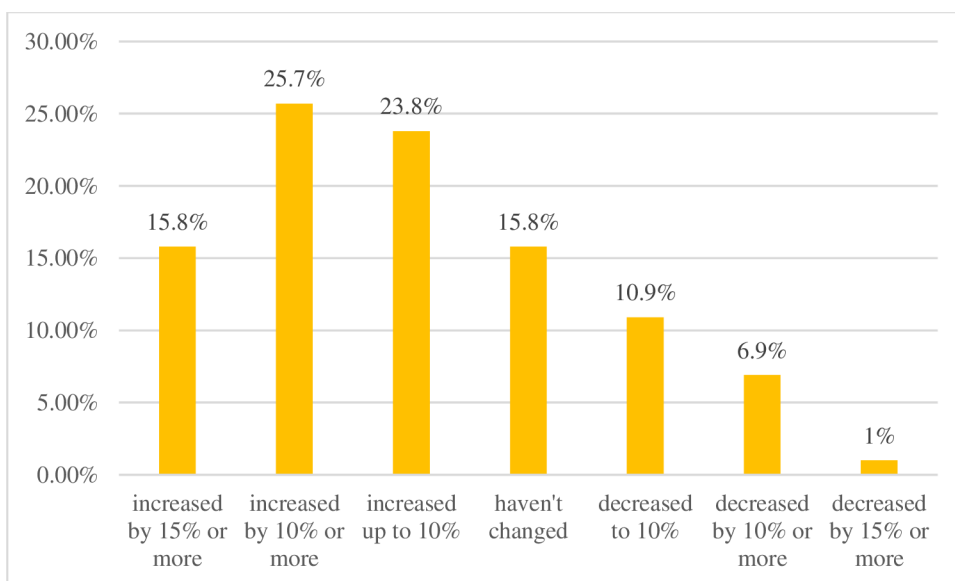
Figure 14 After the pandemic, the flow of customers for your business...



Source: (Authors own work; Google Forms; Excel, 2022)

For a more detailed analysis of each sector of the economy, it is worth asking businessmen about changes in the production cost of their goods and services. The undoubted trend in this matter is an increase in the cost of up to 15% on average (figure 20). It is noteworthy that some respondents note a decrease in the production cost of goods. These changes were noted in general by 19 people (18.81%).

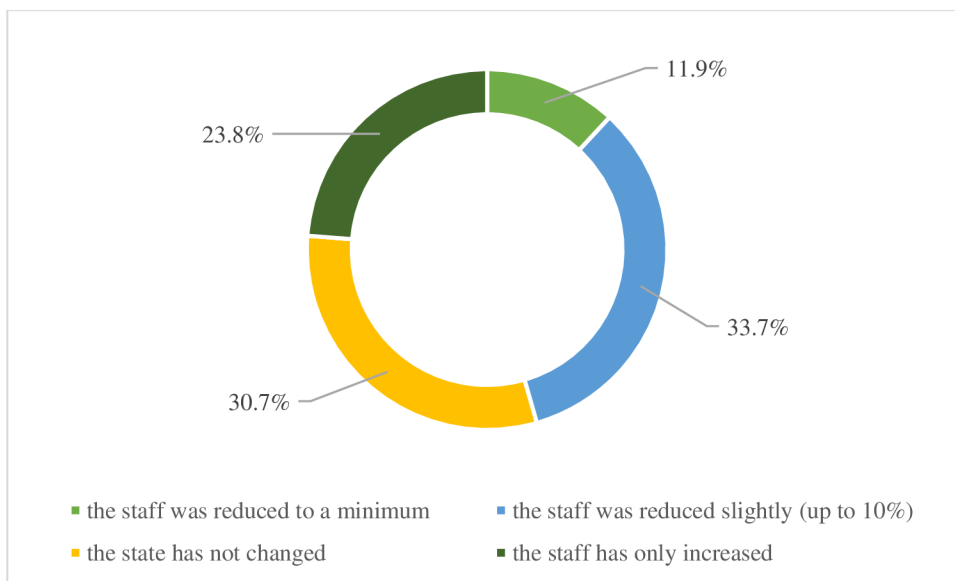
Figure 15 Have there been changes in the production costs of your business (this could be raw materials, advertising, etc.)?



Source: (Authors own work; Google Forms; Excel, 2022)

As for the work team, there is a clear trend towards a decrease in the number of staff in this matter. Thus, 11.9% of businessmen reduced the work team to a minimum, and another 33.7% reduced the number of staff, not to such a radical extent, but still. It is noteworthy that 23.8% of respondents noted that they have expanded jobs for their business. The remaining 30.7% did not change the number of staff. The trend towards staff reduction is confirmed by the increase in the unemployment rate throughout 2021. On average, since March 2021, this indicator is calculated as 3.5%. ("Czech Republic sees jump in unemployment at the end of 2021", 2022)

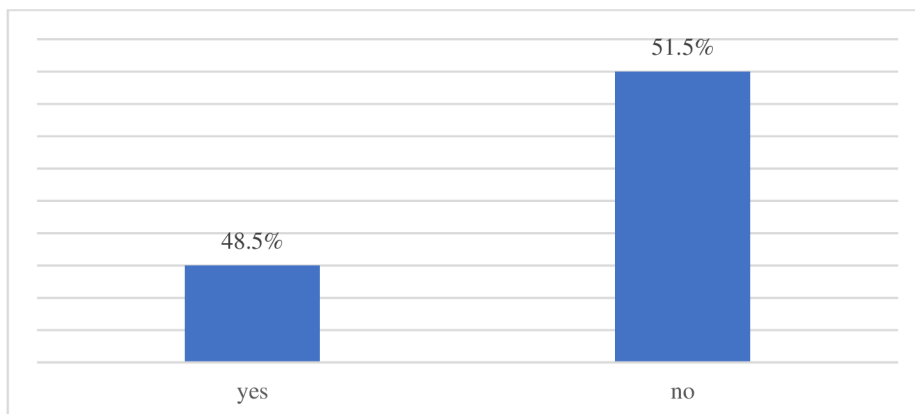
Figure 16 Has your staff changed?



Source: (Authors own work; Google Forms; Excel, 2022)

The pandemic period has brought quite a lot of financial problems to small business owners. Some of these problems have forced businessmen to take out loans.

Figure 17 Have you had to take out a loan to overcome economic difficulties?



Source: (Authors own work; Google Forms; Excel, 2022)

As the survey showed, almost 1/2 of the respondents took a loan (48.5%, figure 17). As the cross-table below shows, there is a visible pattern in the Czech Republic - in the regions, respondents more often resort to loans than in the capital of the republic - in Prague (table...).

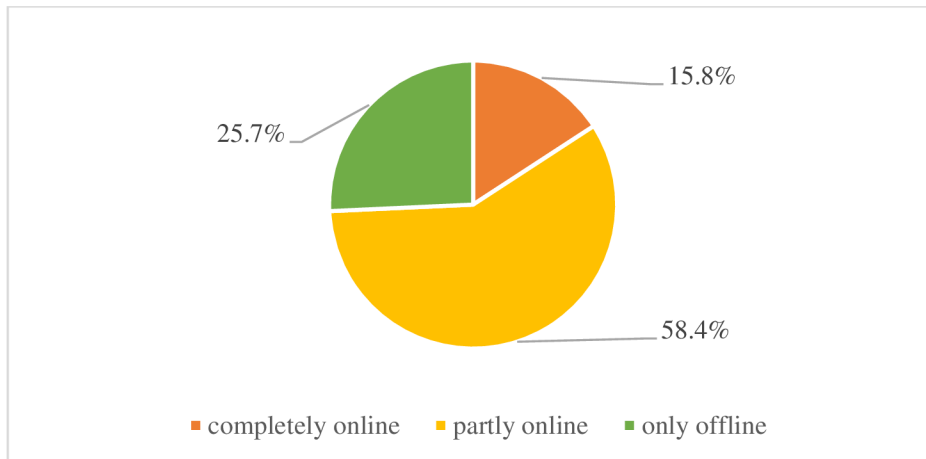
Table 4 Cross table c

		Have you had to take out a loan to overcome economic difficulties?	
		a) yes	b) no
In which region of the Czech Republic is your business located?	South Moravian region	1	3
	Zlin region	2	1
	Olomouc region	2	1
	Moravian-Silesian region	1	2
	Central Czech region	9	3
	South Bohemian region	2	2
	Pilsen region	1	2
	Karlovy Vary region	6	3
	Ustets region	0	3
	Liberec region	2	3
	Hradec Kralove Region	1	0
	Pardubice region	2	4
	Prague	20	25

Source: (Authors own work; IBM SPSS Statistics, 2022)

Of course, the covid-19 pandemic has created new challenges and threats. Due to the new conditions, most of the small businesses have moved either completely or partially to the online space. So, 16 people (15.8%) transferred their business completely to the online format, as many as 60 people (58.4%) partially switched to the online space, and only 25.7% remained completely offline.

Figure 18 Has your business gone online?



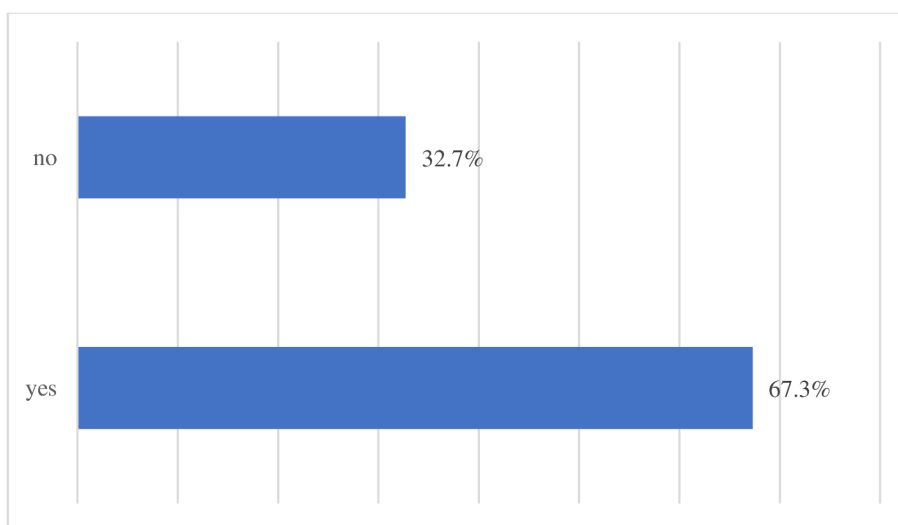
Source: (Authors own work; Google Forms; Excel, 2022)

4.2.4 The emotional state of employees

One of the rather serious problems was the burnout of workers, which greatly contributed to the decrease in the efficiency of the business. 67.3% of employers report burnout among their employees and, as a result, notice a significant decrease in work efficiency. 32.7% of people note that their employees have not experienced burnout, but here it is worth noting the fact that not every employer monitors the emotional state of their employees.

The negative impact of employee burnout has been confirmed by Deloitte research. According to them, as many as 77% of employees experienced burnout, which in turn in 91% of cases entails negative consequences for effective work ("Workplace Burnout Survey | Deloitte US", 2022).

Figure 19 : Have you noticed that your employees feel burned out due to new challenges, which significantly reduces the efficiency of their work and business in general?



Source: (Authors own work; Google Forms; Excel, 2022)

Thus, small business in the Czech Republic has experienced many new challenges and threats. It is noteworthy that the majority of businessmen were able to adapt to the current realities and conduct their business quite successfully. Evidence of adaptation is the fact that most small businesses are now online, and evidence that small businesses have coped well with the threats of the Covid-19 pandemic is evidence that a significant part of business owners have kept their income, and some even increased it.

5. Results and Discussion

5.2 Summary about questionnaire

A survey among small business owners in the Czech Republic showed that there are very diverse trends in this sector. Smaller businesses have experienced more hardships, such as reduced revenues. The larger business was able to exaggerate its bottom line. The Covid-19 pandemic will mainly affect the service, entertainment, tourism and beauty sectors. It was because these areas that did not function for the longest time, while the food business did not stop working at all. A rather serious obstacle to business recovery is an increase in the cost of producing goods and services. Cost increases sometimes about 15%. In addition, the Covid-19 pandemic has created a trend to lay off employees, which in 2021 led to an increase in unemployment in the country. However, small business for the most part has adapted to modern conditions and has moved online to a certain extent.

5.3 Future preposition and survey limitations

This study had several limitations. For example, for the most part, survey participants were business owners in Prague, some regions of the Czech Republic were represented in a very small percentage or not at all. In addition, for a more complete analysis, the representativeness of a number of small business areas is not enough. However, this is not a serious disadvantage of the work, it is an excellent opportunity for future research to expand it.

Based on the results of the study, two key conclusions-recommendations can be drawn. First, in modern realities, every business needs at least a partial transfer to the online space. This solution will help you to be always ready for new threats and not lose your physical business, it will help to reduce some of the costs (for example, renting an office for employees who will now work online) and, among other things, this solution can help increase the flow of customers, since in 2 years pandemic, most of society has moved online. The second important recommendation is to monitor the emotional state of employees. At the level of a small business, the efficiency of an enterprise is determined by the efficiency of each of its members, in this regard, employers should take care of their employees, encourage them and give them a break in case of emotional burnout, which can lead to a decrease in the efficiency of the entire enterprise.

6. Conclusion

The Global Pandemic affect many sectors of Czech economy. The main industries that suffered were mostly connected with services. Majority of the companies had to halt their manufacturing processes due to the restrictions and protective measures ordered by the government. It leads to the huge drop of business confidence and consumer confidence as well. These indicators are very important for sustainable economic development and they should be recovered with new government regulations. At the same time, the role of the online stores has significantly decreased since COVID-19 started. Companies had to adapt very quickly and implement online stores in order to have the same income.

This study is very relevant in modern realities, since small businesses are just recovering after the improvement of the epidemiological situation. However, it is worth noting the fact that conditions and realities are changing at lightning speed, and therefore changes in small businesses can occur constantly. This study is important and interesting because it reflects the state of small business in the Czech Republic "here and now", and it can help determine the main directions for further development. For example, the main trends now are the transition of business to online and an increased interest in the emotional state of employees. These two criteria, if fulfilled, can make a business more competitive in modern conditions.

Thus, by conducting a survey in the form of a survey, the author made a significant contribution to determining the state of the small business market. Of course, this study requires additions and constant monitoring of the economy, since due to the transience of economic conditions, the results of the survey may change.

7. References

Andoh, R., 2020. The Impact of COVID-19 on Global Economy: The Case of the Czech Republic. *International Journal of Multidisciplinary Sciences and Advanced Technology*, 1, pp.22-29.

Brecka, L., 2020. Czech Republic & COVID-19 & Financial guarantees and help for businesses. [online] Twobirds.com. Available at: <<https://www.twobirds.com/en/insights/2020/czech-republic/czech-republic-and-covid-19-and-financial-guarantees-and-help-for-businesses>>

Chan, L., 2021. Post-Covid Prospects: Czech Republic. HKTDS Research, [online] Available at: <<https://research.hktdc.com/en/article/NzY0NzU5NjEx>>

Cnb.cz. 2020. Direct impacts of the Covid-19 pandemic on the Czech economy - Czech National Bank. [online] Available at: <<https://www.cnb.cz/en/monetary-policy/inflation-reports/boxes-and-annexes-contained-in-inflation-reports/Direct-impacts-of-the-Covid-19-pandemic-on-the-Czech-economy>>

Czech Republic sees jump in unemployment at the end of 2021. Expats.cz. (2022). Retrieved 15 March 2022, from <https://www.expats.cz/czech-news/article/the-end-of-2021-sees-a-jump-in-unemployment-in-the-czech-republic>.

European Commission. (2018). 2018 SBA Fact Sheet [Ebook] (p. 4).

Gu, S., Ślusarczyk, B., Hajizada, S., Kovalyova, I. and Sakhbieva, A., 2021. Impact of the COVID-19 Pandemic on Online Consumer Purchasing Behavior. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(6), pp.2263-2281.

Ifm-bonn.org. 2022. SME definition of the European Commission. [online] Available at: <<https://www.ifm-bonn.org/>>

Kenton, W. (2021). What Is Manufacturing?. Investopedia. Retrieved 13 March 2022, from <https://www.investopedia.com/terms/m/manufacturing.asp#:~:text=The%20term%20manufacturing%20refers%20to,of%20the%20raw%20materials%20used>

Kucirek, J. Automobilindustrie. Czechinvest.org. Retrieved 14 March 2022, from <https://www.czechinvest.org/de/Prioritatssektoren/Automobilindustrie#:~:text=as%20the%20biggest%20industrial%20sector,the%20Czech%20Republic%20in%202019>.

Manufacturing Output by Country. Macrotrends.net. (2018). Retrieved 13 March 2022, from <https://www.macrotrends.net/countries/ranking/manufacturing-output>.

Oecd.org. 2022. Czech Republic: actively support business and employment to strengthen COVID-19 recovery - OECD. [online] Available at: <<https://www.oecd.org/newsroom/czech-republic-actively-support-business-and-employment-to-strengthen-covid-19-recovery.htm>>

Rugraff, E. (2009). Foreign Direct Investment (FDI) and Supplier-Oriented Upgrading in the Czech Motor Vehicle Industry. *Regional Studies*, 44(5), 627-638. <https://doi.org/10.1080/00343400903095253>

Scott, M. and Bruce, R., 1987. Five stages of growth in small business. *Long Range Planning*, [online] 20(3), pp.45-52. Available at: <<https://citeseerx.ist.psu.edu/>>.

Standard, B., 2022. Lending Interest Rate - SI Calculation and Influencing factors. [online] Business Standard. Available at: <<https://www.business-standard.com/about/what-is-lending-rate>>

The Czech Republic Has Been a Manufacturing Industry Leader for Decades. (2022). [Blog]. Retrieved 14 March 2022, from <https://cdmcmachine.com/czech-republic-manufacturing-industry-leader-decades/#:~:text=As%20with%20much%20of%20central,more%20than%20120%20thousand%20people>.

Traditional Czech Industrial Sectors |. Mzv.cz. (2022). Retrieved 15 March 2022, from https://www.mzv.cz/chengdu/en/trade_and_economy/traditional_czech_industrial_sectors/index.html.

Vlada.cz. 2022. Measures adopted by the Czech Government against the coronavirus | Government of the Czech Republic. [online] Available at: <<https://www.vlada.cz/en/media-centrum/aktualne/measures-adopted-by-the-czech-government-against-coronavirus-180545/>>

Workplace Burnout Survey | Deloitte US. Deloitte United States. (2022). Retrieved 15 March 2022, from <https://www2.deloitte.com/us/en/pages/about-deloitte/articles/burnout-survey.html>.

8. Appendix

1. What is your age?

- a) 18-24
- b) 25-34
- c) 35-50
- d) more than 50

2. Your gender:

- a) male
- b) female

3. In which region of the Czech Republic is your business located?

- 1. Prague
- 2. Central Czech region
- 3. South Bohemian region
- 4. Pilsen region
- 5. Karlovy Vary region
- 6. Ustets region
- 7. Liberec region
- 8. Hradec Kralove Region
- 9. Pardubice region
- 10. Vysočina Region
- 11. South Moravian region
- 12. Zlin region
- 13. Olomouc region
- 14. Moravian-Silesian region

4. What is your business area?

- a) catering
- b) tourism and recreation
- c) trade
- d) service sector
- e) logistics

- f) entertainment
- g) sports/fitness
- h) beauty industry
- i) production
- j) finance/banking
- k) other

5. Before the Covid-19 pandemic, your average monthly income was:

- a) less than 200,000 CZK
- b) from 200,000 to 300,000 CZK
- c) from 300,000 to 400,000 CZK
- d) more than 400,000 CZK

6. After the Covid-19 pandemic, your average monthly income is:

- a) less than 100,000 CZK
- b) from 100,000 to 200,000 CZK
- c) from 200,000 to 300,000 CZK
- d) from 300,000 to 400,000 CZK
- e) more than 400,000 CZK

7. Have you had to stop working due to Covid-19? If yes, how long?

- a) Stopped for 1-2 months
- b) stopped for 4-6 months
- c) did not function for about a year
- d) continued to work as usual

8. After the pandemic, the flow of customers for your business:

- a) has dropped significantly
- b) decreased a little
- c) stayed the same
- d) slightly increased
- d) has increased significantly

9. Have there been changes in the production costs of your business (this could be raw materials, advertising, etc.)?

- a) increased by 15% or more
- b) increased by 10% or more
- c) increased up to 10%
- d) haven't changed
- e) decreased to 10%
- e) decreased by 10% or more
- g) decreased by 15% or more

10. Has your staff changed?

- a) the staff was reduced to a minimum
- b) the staff was reduced slightly (up to 10%)
- c) the state has not changed
- d) the staff has only increased

11. Have you had to take out a loan to overcome economic difficulties?

- a) yes
- b) no

12. Has your business gone online?

- a) completely online
- b) partly online
- c) only offline

13. Have you noticed that your employees feel burned out due to new challenges, which significantly reduces the efficiency of their work and business in general?

- a) yes
- b) no