

# Impact of the coronavirus pandemic on the tertiary sector

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## Abstract

The tertiary sector, also referred to as the services sector, is the most affected sector during the coronavirus crisis. The aim of this paper is to analyze and describe the economic and existential impacts of COVID-19 on this sector worldwide, caused by government interventions and government regulations. To achieve this goal, a self-administered questionnaire survey dealing with companies in the Czech Republic is produced and an existing questionnaire survey by Alonso et al. (2020) dealing with companies in the world is analyzed. Both questionnaires deal with the impact of the COVID-19 pandemic on companies operating in the hospitality sector, the biggest concerns of these companies and their coping with this situation. Companies are most concerned about the financial impact on their business and the uncertainty of what will happen next and how long the pandemic will last. Companies both in the Czech Republic and around the world are dealing with the pandemic in a similar way - by laying off their employees, moving them to other positions or working from home, suspending their activities and waiting for further government action or terminating business activities altogether.

**Keywords:** COVID-19, tertiary sector, hospitality, pandemic impact, activity change

## Introduction

The global coronavirus pandemic affects not only our personal lives but also our economy. The tertiary sector or services sector, which includes, for example, trade, education, hospitality, transport and communications, healthcare or information, administrative, financial and insurance services, has the greatest influence. The services sector represents a significant part of the national economy. The Czech Statistical Office (2020) states that service providers have a 61.9% share in the gross domestic product (GDP) in 2018 of our country.

Due to the coronavirus crisis, many people have been forced to move to a home office, change jobs or leave work altogether. The transition to home office has its advantages and disadvantages (Chanana and Sangeeta, 2020). For some, working from home can be beneficial, for example for parents of young children who cannot go to school at this time. Conversely, the disadvantage may be that when working from home, employees may perform only limited work tasks (Koohsari et al., 2021).

Due to the state of emergency and the measures introduced by the government, many entrepreneurs had to close their business. So who is most affected by the coronavirus crisis in the services sector and how? In this sector, it mainly concerns operators of restaurants, accommodation facilities, hotels or organizers of mass events.

Tourism occupies a very important position in the tertiary sector. It is particularly sensitive to measures against a pandemic, due to limited mobility and social distancing. Due to travel restrictions and lockdowns, global tourism has slowed significantly and the number of global flights has dropped by more than half. As the number of infection cases grew, travel bans grounded a growing number of carriers (Gössling, Scott and Hall, 2020).

Hospitality is a basic branch of tourism. It employs millions of people and contributes hundreds of billions of dollars to the global economy (Dube, Nhamo and Chikodzi, 2020). Restaurant operators and organizers of mass events have not had it easy since the beginning of the pandemic. Governments increasingly restricted their activities and issued various measures, which meant great losses for these entrepreneurs. In many parts of the world, for example, there is a ban on retail sales and the sale and provision of services in establishments, a ban on the public's presence in catering establishments, or a ban on concerts and other cultural events. However, there are also exceptions (pharmacies, food sales, fuel sales, etc.), where, for example, it is necessary to observe 2 meter intervals between people or it is mandatory to test employees in some companies. While some companies have been able to continue to operate and secure, for example, a delivery system, others have fallen into a liquidation crisis or even ceased to exist.

The aim of this seminar paper is to analyze and describe the economic and existential impacts of coronavirus caused by government interventions and government regulations on the services sector worldwide.

In order to meet this goal, two research questions are defined:

- Does the coronavirus pandemic have a negative impact on the whole tertiary sector, or are there any sectors in this sector that are benefiting from the pandemic?
- What are the economic and personnel impacts of the pandemic on the tertiary sector in the Czech Republic and in the world?

## Literature research

Governments are still coming up with new measures and restrictions on how to stop or at least alleviate the COVID-19 pandemic. However, these restrictions hurt businesses in the services sector the most, which are trying to figure out, in times of crisis, how, despite all these regulations, they can continue to operate without having to lay off employees or close down. Based on semi-structured interviews with 13 hotel managers in Jakarta, Bandung and Bali, Japurta and Situmorang (2021) concluded that some of the challenges posed by COVID-19 could turn into opportunities, and that some of the strategies that managers pursue could be harmful in the future.

The COVID-19 pandemic has hit the world economy hard, including tourism and hospitality. The unprecedented nature of COVID-19 has had crippling effects with numerous restrictions on businesses, resulting in far-reaching effects on hotels, restaurants, bars and other hospitality businesses, with overall and seemingly insurmountable challenges for the hospitality industry. The main concerns about the pandemic essentially take the form of significant financial implications, as well as worsening uncertainty about the loss of consumers, the unknown duration of the crisis and the socio-economic impact on employees and livelihoods (Alonso et al., 2020). The pandemic led to job and income losses, resulting in millions of jobs and billions of dollars in potential income losses (Dube, Nhamo and Chikodzi, 2020). Jung, Jung and Yoon (2021) used data from questionnaires distributed to employees for hotels in Seoul and found that if employees perceive job insecurity, it causes lower work commitment and consequently a negative state of mind. Koohsari et al. (2021) concluded through an online survey in Japan that the pandemic has caused significant changes in the work style of workers around the world, and that the increase in work from home is affecting workers' sedentary behavior and physical activity.

During the pandemic, organizations engage in many engagement activities, such as online training, webinars, video conference team meetings, online counseling, etc. In the current context, the introduction of similar employee engagement measures using technology is essential for organizational growth (Chanana and Sangeeta, 2020). The use of digital technologies to perform work from home during a pandemic is rapidly being promoted as an alternative way to maintain a certain minimum level of service for clients and to stay in touch with stakeholders. Although the use of technology in general is not a new phenomenon, its sudden and mandatory nature as a result of COVID-19 has brought new challenges into the hospitality industry (Chadee et al., 2021).

Wieczorek-Kosmala (2021) says that companies with a higher level of holding financial reserves are considered to be companies with better risk preparedness. According to Foroudi et al. (2021), the pandemic affects not only employees of hospitality businesses, but also the beliefs of customers and their emotions (negative and positive), which could affect their future desire to visit restaurants, hotels or other hospitality businesses. Im, Kim, and Choeh (2021) developed two common models and model estimates using the

fixed effects method, and found that the number of confirmed cases and COVID-19 reports affected individuals' social distancing and online search for tourist attraction information.

Robots and artificial intelligence (AI) technologies are increasingly prominent in the tourism industry. Using 4 experiments in the current pandemic situation, Kim et al., (2021) demonstrated a more positive relationship between customers and service robots providing contactless services, which are beneficial in maintaining social distance and reducing fears of infection through human interaction. However, after the end of the pandemic, customer preferences may return to human service instead of robotic service, because human service includes emotions, guarantees and communicativeness.

Gössling, Scott and Hall (2020) say COVID-19 provides remarkable lessons for the tourism industry, policy makers and tourism professionals. COVID-19 has significant long-term and short-term negative effects on the level of employment in the tertiary sector (Khan et al., 2021). For example, the aviation industry has faced many threats and challenges throughout history, but none have been as rapid and difficult as those posed by the proliferation of COVID-19. According to Sobieralski (2020), the employment of major airlines is the most affected, while low-cost and regional employment is less affected.

Huang et al. (2020) concluded that reopening policies play a statistically significant role in the slow recovery of the labor market and that the daily increase in new COVID-19 cases is associated with a continuing deterioration in the labor market.

## **Methods and Data**

The input data will be obtained using online structured questionnaires sent to 60 companies, namely 20 hotels, 20 restaurants and 20 cafes operating in the tertiary sector in the Czech Republic. The data selection will include data collected from the period from April 19 to April 25, 2021. The questionnaire will consist of 10 to 15 questions, which will be closed and open type. The questions in the first part of the questionnaire will be used to collect demographic data from respondents and their companies. The second part will focus on identifying the impacts of the COVID-19 pandemic on companies in the tertiary sector using several open questions. Questionnaires will be sent to companies operating mainly in the hospitality industry (hotels, cafes, restaurants) via e-mail communication. E-mail addresses will be used from the created database of companies in MS Excel.

Next comes the analysis of freely available data by Alonso et al. (2020). This article identifies the impacts of the COVID-19 pandemic on hospitality businesses, adaptive approaches and adjustments in businesses. Managers and owners of hospitality businesses in 8 different countries (Argentina, Australia, Bolivia, Greece, Italy, Malaysia, Spain and the United Kingdom) were contacted via e-mails sent online during April and May 2020. A total of 96 companies were contacted (12 from each country), of which 45 companies replied. The questionnaires contain data and basic characteristics such as: country, position of the respondent in the company, gender, type of company, number of employees, age of the company and 3 open questions.

All data will be processed in MS Excel, where the basic statistical characteristics (mean, variance, median) will be presented and tables and graphs from the obtained data will be created. The output data should show what are the main concerns of companies in the tertiary sector associated with the COVID-19 pandemic, how these companies are coping with this pandemic and what are the changes or adjustments in their daily activities. Freely available data from the existing questionnaire survey in various countries will be used to compare the situation in the Czech Republic with the situation in other developed countries in Europe and in the world.

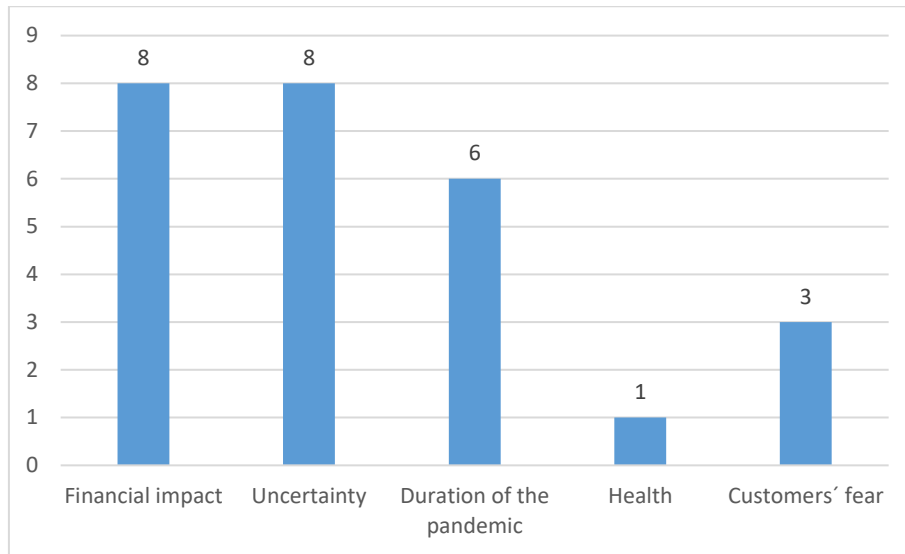
## **Results**

For the questionnaire survey, 60 companies were contacted, namely 20 hotels, 20 restaurants and 20 cafes from randomly selected regions throughout the Czech Republic. Only 9 companies responded, which is only a 15% return. Given that the return rate of the questionnaires in most studies is up to 10%, this fact is essentially positive. Most responses were obtained from cafes, which accounted for 6 responses, then 2 responses came from restaurants and one response from a hotel.

The age of the companies that filled in the questionnaire ranges between 2-65 years, i.e. on average 18.39 years. 66.7% of companies are small enterprises (10-49 employees) and 33.3% are micro-enterprises (1-9 employees). The scope of companies is 88.9% regional and 11.1% multinational. Three companies out of nine at this time used or still use the possibility of delivering products or meals. They are mainly cafes and restaurants. Two companies replied that they used their own distribution and one stated that it used the distribution in cooperation with another company for 1 month.

The questionnaire further addressed what were or still are the biggest concerns associated with COVID-19 in relation to the business of the addressed companies, how these companies cope with this situation and whether, or what opportunities the COVID-19 pandemic provided them. For the first two questions, respondents had a choice of several options, where they could tick one or more answers and write their own answer. The biggest concerns associated with the COVID-19 pandemic are / were addressed by the contacted companies from the financial impact on their business and from the uncertainty of what will happen next with their business. Other concerns most frequently identified by respondents were the uncertain duration of the pandemic and customer fear. Only one company identified health concerns, see Graph 1.

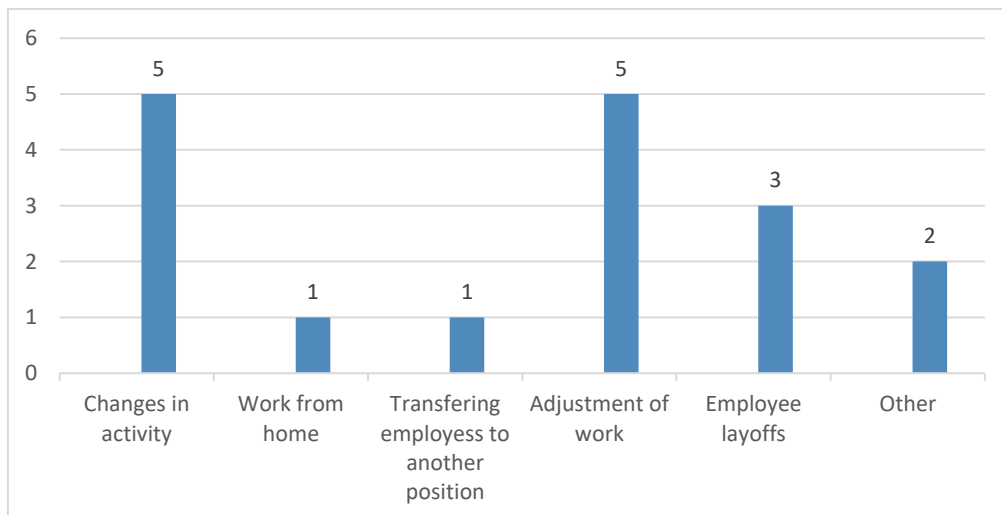
Graph 1: Biggest concerns associated with COVID-19



Source: Authors.

When asked how companies cope with this situation, the most answers were changes in activities or tasks and adjustment of working hours. Three companies replied that they were coping with the current situation by laying off their employees. One answer was about the possibility of working from home and moving employees to other positions, see Graph 2. Two companies then added their own answer: the first company stated that 95% of employees are at home and the second stated that they had to close and wait for what will happen.

Graph 2: Ways of dealing with the COVID-19 pandemic



Source: Authors

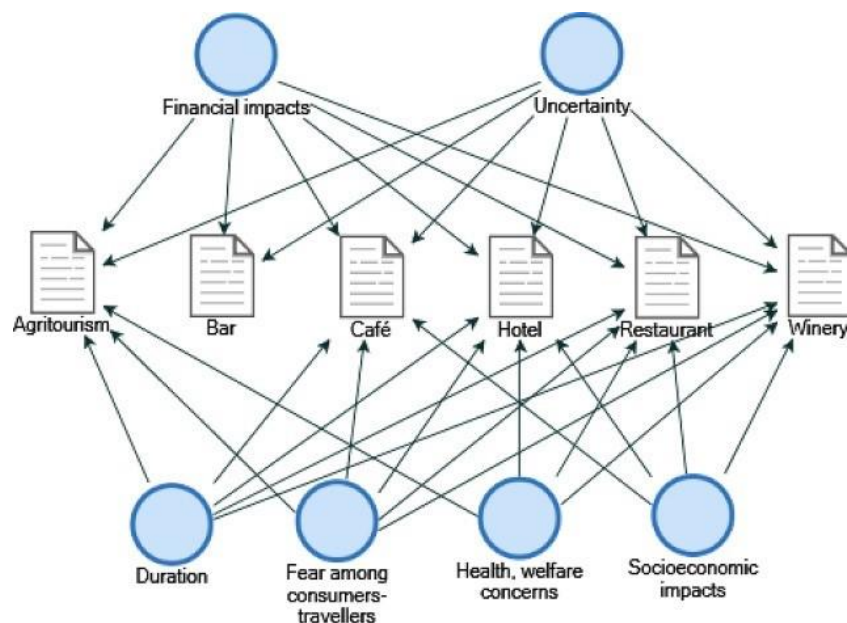
To the last question whether or what opportunities the COVID-19 pandemic brought to companies, 7 companies answered that the pandemic did not bring them any opportunities. The other two companies replied that the pandemic provided them with

new opportunities. For one company it was an opportunity to buy more cheap operations and for another it was an opportunity to stop, think about the concept, restructure and set priorities during this pandemic.

Regarding the questionnaires of Alonso et al. (2020) 45 out of 95 respondents answered, which is 46.9%. The largest number of responses was obtained from hotels (33.3%), followed by restaurants (24.4%), wine bars (17.8%) and cafes (15.6%). The age of companies ranges between 1-80 years, with the majority (64.4%) being established for more than 10 years. According to the respondents, all participating companies belong to the category of small and medium-sized enterprises, i.e. they have less than 250 employees. The number of employees of the participating companies ranges between 2-70 employees.

The biggest concerns of companies associated with the COVID-19 pandemic in relation to their business were from 84.4% concerns about the financial impact, followed by the uncertainty created by this pandemic. Another significant concern among the participants was the fear of customers and tourists now or in the future. Respondents' concerns also included the effects of the pandemic on the future employability of employees and health, whether it was the health of people in the respondents' households or directly the employees in the company. Alonso et al. (2020) illustrated these responses in Figure 1.

Figure 1: Concerns associated with the COVID-19 pandemic in relation to business activity

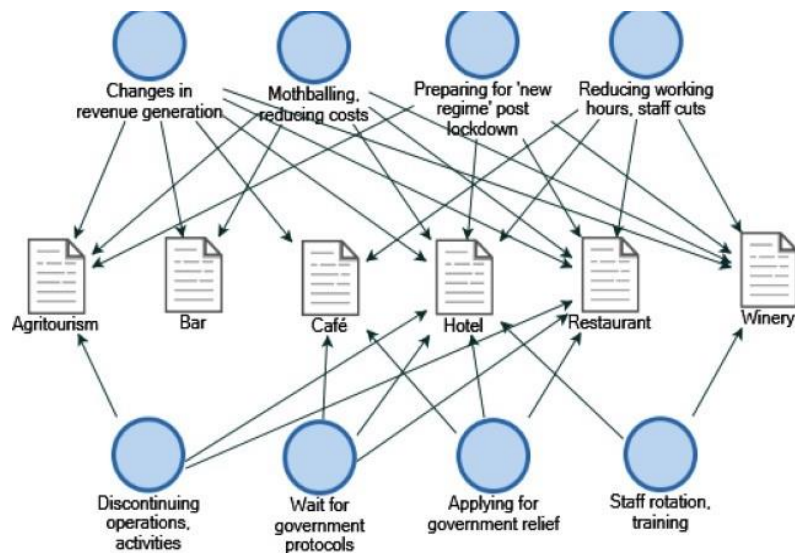


Source: Alonso et al. (2020), processed by authors.

When asked how companies are coping with the COVID-19 pandemic, 34 respondents found more than one solution. 37.8% of these solutions were focused on generating alternative revenue streams, for example by including or strengthening the possibility of delivering and take-out of food or products. Other ways in which participating companies are dealing with the COVID-19 pandemic are shown in Figure 2. Thanks to innovative and

creative approaches, some companies have managed to build a certain resilience and create new business opportunities. However, the pandemic did not bring any new opportunities to some companies. This is the case, for example, for those who are located far from consumers or places of demand or for those who have a different structure and business circumstances (food only for guests). Respondents had 3 different approaches to dealing with the COVID-19 pandemic. The first approach is active, which concerns the improvisation of the range of products and services that the company offers, or the use of innovative capabilities and the benefits of their location, for example in the city center. The second approach is inefficient, where companies have chosen to prepare for a post-pandemic regime. The third approach is inactive, where the only option for companies was to interrupt operations or set a standby mode, during which companies are waiting for new protocols allowing them to reopen.

Figure 2: Ways of dealing with the COVID-19 pandemic

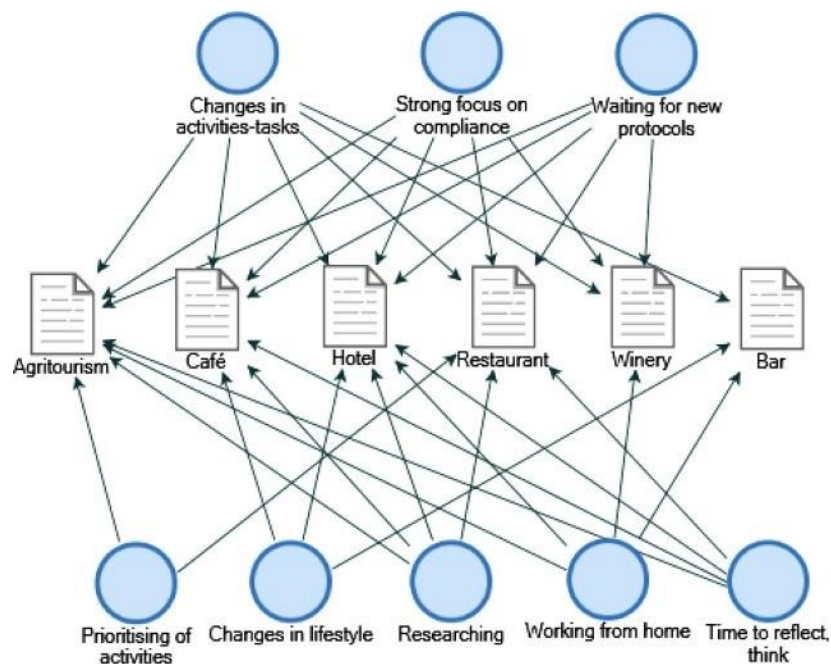


Source: Alonso et al. (2020), processed by authors.

When asked whether companies somehow changed or modified their daily activities, 60% of respondents said yes. The most frequent changes were mainly working from home. In the case of modifications in companies, emphasis was placed primarily on compliance with the requirements for the protection of the health and safety of guests and employees. Some participants also mentioned that they had time to think about new ideas, gather information and think about the future of their business. In some cases, they have changed their lifestyle. Changes and modifications of companies are shown in Figure 3.



Figure 3: Changes/adjustments in daily activities or tasks



Source: Alonso et al. (2020), processed by authors.

## Discussion

The results of the own questionnaire, answered by 9 out of 60 respondents, show that companies in the tertiary sector had or still have the greatest concerns about the financial impact on their business, uncertainty about what will happen to their business and the duration of the pandemic. Respondents also mentioned the fear of customers and tourists now and in the future. The same results were obtained by Alonso et al. (2020) from their questionnaires, which were answered by 45 out of 96 respondents. In Alonso et al. (2020) In addition, respondents raised concerns about the effects of the pandemic on the health of people in their households or the health of employees in their company.

During the research, 2 research questions were asked.

RQ1: Does the coronavirus pandemic have negative effects on the entire tertiary sector, or are there any sectors in this sector that are benefiting from the pandemic?

Although the COVID-19 pandemic appears to have harmed tertiary sector companies, it has provided new opportunities for some companies. In the hospitality industry, these are mainly delivery services for food and other products, without which restaurants and other hospitality facilities would not be possible to function at this time. Due to government regulations, restrictions on the movement of people and the closure of hospitality establishments, delivery has become the only way to get food or products to customers. When companies decided to deliver their products, they usually did so with the help of their own delivery. Some companies also used the services of distribution companies.

RQ2: What are the economic and personnel impacts of the pandemic on the tertiary sector in the Czech Republic and in the world?

The effects of the COVID-19 pandemic on the tertiary sector in the Czech Republic and in the world do not differ much. According to the questionnaire regarding the Czech Republic, the effects of the pandemic on hospitality companies meant mainly the dismissal or transfer of employees, changes in day-to-day activities and tasks, or even the termination/interruption of activities. However, this statement is inaccurate, given the small number of answers obtained.

According to the questionnaire survey by Alonso et al. (2020), the effects of the COVID-19 pandemic on hospitality businesses in other countries were similar. Companies around the world have also had to lay off their employees, move them to other positions or work from home, and close or suspend their activities.

Every company, whether in the Czech Republic or in the world, has reacted differently to the effects of the coronavirus pandemic. While some companies have focused on generating alternative revenue, building the company's resilience and creating new business opportunities during the pandemic, some companies have chosen to suspend their activities and prepare for the post-pandemic regime. Some companies have given up their fight against the pandemic and decided to end their activities or suspend them and wait for new government directions.

## **Conclusion**

The aim of the paper was to analyze and describe the economic and existential impacts of coronavirus caused by government interventions and government regulations on the tertiary sector worldwide.

The aim of the paper was met. Data from the author's questionnaire survey and from the questionnaire survey of Alonso et al. (2020) was processed in MS Excel. These sets of data were then analyzed and presented in graphs and figures in the results chapter. In the chapter discussing the results, research questions were answered and the results from Alonso et al. (2020) were compared with author's own results from the questionnaire survey. Businesses in the tertiary sector are most concerned about the financial impact on their business and the uncertainty of what the pandemic will bring and how long it will last. Most often, companies dealt with the pandemic by laying off their employees, moving to work from home and adjusting their daily activities or tasks. Due to the COVID-19 pandemic, some companies had to close down. However, the results of the author's questionnaire survey were not very accurate, due to the small number of answers obtained. Nevertheless, it could be said that the Czech Republic and other countries in the world are dealing with the COVID-19 pandemic and its effects in a similar way.

In the future, it would be interesting to find out whether companies that have ceased their activities as a result of the COVID-19 pandemic have decided to resume their business in this sector or have decided to completely change their business plan.

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