Impact of the COVID-19 pandemic on the hotel strategy: Introductory assessment

Andrea Králiková[1], Kateřina Ryglová[1], Silvie Zámečník[2]
e-mail: andrea.kralikova@mendelu.cz, katerina.ryglova@mendelu.cz, silvie.zamecnik@mendelu.cz

[1] Department of Marketing and Trade, Faculty of Business and Economics, Mendel University in Brno, Brno, Czech Republic
[2] Department of Management, Faculty of Business and Economics, Mendel University in Brno, Brno, Czech Republic

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Abstract
The pandemic COVID-19 led to almost "zero tourism" worldwide, with unforeseen consequences for a certain period of time. The hospitality industry was one of the hardest hit sectors of tourism, resulting in unprecedented versatility of lodging establishments. This paper examines the impact of the COVID-19 pandemic on the hospitality industry, focusing primarily on the socio-demographic aspect of domestic demand in the Czech Republic. The gender of guests was found to have a strong impact on various safety requirements, such as maintaining a safe distance, reduced hotel capacity, or provided disinfection. In addition, women rated all COVID-19 measures higher than men. Other socio-demographic aspects, such as age and education, also have an impact on safety requirements. Consequently, the research findings can help develop new hotel strategies that keep the guest experience and profit optimization in mind.

Keywords
hotel industry, COVID-19, safety, demand requirements, tourist behavior

JEL classification: Z30, Z31, Z32 **Accepted: 10 July 2022**

Introduction and theoretical background

At the global level, tourism is one of the most important sectors that has a significant impact on economic performance and employment in a given country (Abubakirova, 2016). Tourism can not only create new jobs, but also generate significant revenue for a particular destination or country (Musavengane et al., 2019). In addition, global economic growth has a positive impact on the prosperity in society, which means that more and more people are willing to travel. Therefore, the importance of the tourism sector is increasing. Especially at the local level, where in many places it is the only economic development tool with significant regional impact, as it diverts development away from the country's industrial centers (Soukiazis & Proenca, 2008).

On the other hand, there are a number of risks that can disrupt the aforementioned growth in the importance of tourism at the global level and have a significant negative impact on the tourism sector. In addition, the tourism sector is one of the industries that are most sensitive to changes in the external environment (Ming & Zhong, 2020). Based on previous studies, Matiza and Slabbert (2021) identified 11 categories of perceived risks in the tourism sector, such as financial, social, crime, terror, physical (health-related or natural disasters), or politically oriented risks. Even though these risks may only have a local impact, they very often lead to a decrease in overall travel demand and can have a fatal impact on the tourism ecosystem.

This can be observed in the current pandemic situation, where national measures, travel restrictions, and fear of contagion have led to a sharp decline in tourism and related industries worldwide in 2020 (see Table 1). This resulted in a 49.1% decline in global GDP generated by travel and tourism worldwide (2020 compared to 2019), representing a GDP loss of approximately $4.5 trillion. In addition, domestic and international visitor spending declined rapidly at the global level, with domestic visitor spending declining 45% in 2020 compared to 2019 and international visitor spending declining 69.4%. Furthermore, 62 million jobs were lost in the travel and tourism industry worldwide in 2020 compared to 2019 (World Travel & Tourism Council, 2021). The number of tourist arrivals also decreased by 73% worldwide in 2020 compared to 2019. April, May, and March were the hardest-hit months, with tourist arrivals down more than 91% in 2020 compared to 2019 (UNWTO, 2022).

Table 1 Global impact of COVID-19 on the tourism industry
(Source: World Travel & Tourism Council, 2021; UNWTO, 2022)

Measure	Decline 2020 compared to 2019
Global GDP generated by tourism	49.1%
Global GDP generated by tourism	approx. $4.5 trillion
Global job loss in tourism industry	62 million
Global tourist arrivals	73%
Global visitors spending	
Domestic visitors	45%
International visitors	69.4%

Similar to the rest of the world, the Czech Republic has faced a massive decline in the number of international tourists and, to some extent, domestic tourists. According to available data from CzechTourism (2021a), the number of overnight stays by domestic tourists has decreased by 20.3%

(2020 compared to 2019) and that of international tourists by 73% (2020 compared to 2019). A similar situation can be seen in the travel data for 2021, where almost 82% of all arrivals in the Czech Republic (in the first three quadrants of 2021) were made by domestic tourists (CzechTourism, 2021b).

As a result, the various lockdowns caused by the COVID-19 pandemic led to an almost "zero tourism" situation worldwide at the onset of the pandemic, with highly unpredictable results. In the meantime, the COVID-19 pandemic significantly accelerated some of the long-term trends in tourism and it also changed developments in other areas.

One of the most important global trends is the growth of domestic tourism (Gössling et al., 2020; Vaishar & Šťastná, 2020). This is also the case of the Czech Republic, where the vast majority of tourists are domestic tourists (CzechTourism, 2021a). Moreover, the largest year to year (2020 compared to 2021) increase in the number of tourists is in rural regions (Vysočina and South Moravia), which are highly visited by domestic tourists (CzechTourism, 2022). Other trends, according to the Tourist Authority - South Moravia (2021) are as follows:

- traveling shorter distances with a preference to use one's own car or caravan,
- requirements for safety, health, cleanliness, and hygiene,
- the digitalization of all processes of tourist services (development of new technologies, automatic reservation systems, cashless transactions, etc.),
- preferences for outdoor activities and outdoor experiences,
- travel flexibility (friendly cancelation conditions),
- environmental preferences and social sustainability.

Despite these new trends, the tourism sector was the first to be affected by various government restrictions (Khan et al., 2021) because it is highly dependent on people's mobility (Yang et al., 2020). Moreover, it is the service-oriented sectors that are most affected by the COVID-19 restrictions (Aharon et al., 2021). In the tourism sector, it is the hospitality industry that is particularly vulnerable to negative changes in travel and economic activities (Jiang and Wen, 2020). Consequently, the COVID-19 pandemic led to a very important change in the behavior of all lodging establishments (Rivera, 2020).

Even though the COVID-19 pandemic was much unexpected, there have been other crises over the years that have negatively affected the hotel industry (e.g., SARS or MERS outbreaks, earthquakes, or terrorist attacks). According to Tse et al. (2006), these external crises are not caused by the company itself but are triggered by a natural or social environment. In order to cope with the implied external crises, it is inevitable to have a crisis management plan ready (Israeli et al., 2011). It can not only alleviate the negative effects of the crisis, but also help to prevent the possible collapse or even bankruptcy of the hotel company (Benaben et al., 2016).

During the SARS crisis in Hong Kong, Tse et al. (2006) recognized two main practices of crisis management in the hospitality industry: cost reduction and dynamic marketing. In addition, some authors have even developed models to manage specific crises in the hospitality industry. For example, Liu et al.

(2015) developed a model for the bed bug crisis ("hotel 4R"-reduction, readiness, response, recovery). Similar practices have also been developed during the current COVID-19 crisis, e.g., Pavlatos et al. (2020) introduced five practices (operations, maintenance, human resources, marketing, and government) that can lead to recovery from the negative impact of the COVID-19 pandemic in Greek hotels.

Given the current pandemic, crisis management became a popular topic in the tourism industry (Lai and Wong, 2020). In addition, perceptions of travel risk and willingness to change travel plans increased significantly as a result of the pandemic COVID-19 (Neuburger & Egger, 2021). According to Sánchez-Cañizares et al. (2020), this increased perception of travel risk has a negative impact on tourists' attitudes toward travel. These attitudes also depend on the sociodemographic characteristics of tourists. According to Czeisler et al. (2020), men and women have much in common regarding public health measures. However, women tend to avoid public spaces more than men and are more likely to advocate social distancing and wearing face masks in public. Other studies by Beck and Hensher (2020) as well as Frederiksen et al. (2020) also suggest that women view COVID-19 as a major health risk that requires serious action. In addition, Karpinska-Krakowiak, 2021 and Yasir et al., 2020 found that people with higher education are more concerned about their safety and less willing to take a risk. Other authors such as Aschauer, 2010; Khan et al., 2018 or Senbeto and Hon, 2020 also point out that older tourists are more concerned about physical risks associated with tourism and are less willing to travel in situations where there are health concerns.

For this reason, the research question for this study was posed as follows: Are COVID-19 hospitality safety measures perceived the same by different socio-demographic groups of hotel guests?

In addition, it is also important to build long-term trust with potential tourists. According to Shin and Kang (2020), trust, especially in the hospitality industry, can be gained by implementing various technological innovations as well as risk mitigation strategies. It is also important to create a safe and healthy environment for both tourists and employees (Stergiou & Farmaki, 2021; Yu et al., 2021). Therefore, in accordance with the United Nations (2020) policy brief, hotels must provide a safe experience for their guests. Robina-Ramírez et al. (2021) therefore suggest the introduction of social distancing, sanitation, and hygiene measures for the hospitality industry. However, perceptions of these safety measures vary from tourist to tourist. Previous studies (Engemann & Wall, 2009; Kaswengi & Diallo, 2015) examining changes in consumer behavior during times of crisis have found that personal characteristics such as gender, age, income, and education underlie these changes.

Therefore, the aim of this preliminary study is to gain initial insights into the impact of the COVID-19 pandemic on the hotel industry. The study is focusing on the different perceptions of safety requirements by customers with different socio-demographic characteristics (gender, age, education, and respondents' residence) in the Czech Republic. The research results can help to develop new hotel strategies that keep the guest in mind. At the same time, a comparison is made with the results of recent relevant studies. Furthermore, the validity of the results of current works for the specific environment in the Czech Republic is also considered.

Methodology and research context

This study is focused on the Czech Republic, which is considered a developed landlocked country in the center of Europe with an advanced economy based on manufacturing and services. According to the GPI (Global Peace Index), the country is ranked 9th in 2021 (Institute for Economics & Peace, 2021).

Primary data on domestic visitors were collected in March 2021. A total of 21 questions were used that addressed visitor perceptions of COVID-19 safety measures. In addition, 15 questions were used for lodging establishments that addressed COVID -19.

Quota sampling was conducted based on respondent gender. In 2019 (more current data were not available at the time of data collection), according to the Czech Statistical Office (2019), the gender distribution in the Czech Republic was as follows: 49.3% of Czech residents were men and 50.7% were women. To ensure reasonably timely preliminary results, the total number of respondents is relatively small. Nevertheless, the 210 respondents are distributed according to the quota sampling, with the proportion of men being 51.4% and women 48.6%. Due to the limitations of COVID-19, the data were mainly collected electronically through Czech travel portals such as hedvabnastezka.cz, cestovatel.cz, cestovatelskeforum.cz. To ensure a quota sample, the remaining data were collected via various social networks. The detailed structure of respondents can be seen in Table 2.

Table 2 Structure of the respondents

Category	Count	Percentage
Men	108	51.43
Women	102	48.57
Primary and secondary education	117	55.71
Higher education	93	44.29
18-25 years	93	44.29
26-34 years	65	30.95
Over 35 years	52	24.76
South Moravia region	85	40.48
East CZ[1]	58	27.62
West CZ[2]	67	31.90

Note: N=210.

In this preliminary research 7 safety requirements were examined, which can be seen in Table 3. The evaluation of 7 safety requirements was done on a 5-point Likert scale (e.g., Djeri et al., 2018; Vojtko et al., 2020). All of these requirements represent safety regulations for the accommodation industry approved by the Czech Ministry of Health at the time of data collection (Ministry of Health, 2021).

In order to examine the effects of COVID-19 measures in the hotel industry on the personal characteristics such as gender, education, age, and place of residence of domestic visitors, a dependency analysis was conducted. Due to the non-normality and ordinality of the data, the Kruskal-Wallis test

[1] Regions of Hradec Králové, Pardubice, Vysočina, Olomouc, Zlín and Moravian-Silesian.
[2] Regions of Liberec, Central Bohemia, Prague, South Bohemia, Ústí nad Labem, Pilsen and Karlovy Vary.

was used (Laerd statistics, 2018). Therefore, the assumption for the null hypothesis is the same distribution for certain personal characteristics of respondents (Sheskin, 2011) derived from previous studies (Beck & Hensher, 2020; Karpinska-Krakowiak, 2021; Senbeto & Hon, 2020).

Table 3 COVID-19 measures in hotels

Factor	Mean	Median	Std. deviation
Face mask requirement	3.80	4.00	1.21
Maintaining a safe distance	3.57	4.00	1.08
Provided disinfection	3.53	4.00	1.19
Ordering food to a hotel room	3.53	4.00	1.15
Reduced hotel capacity	3.23	3.00	1.18
Reduced contact with hotel staff	3.16	3.00	1.12
Check-in/out app	3.12	3.00	1.21

Note: 5 → very important, 1 → not important.

To examine implementation of the COVID-19 measures, we also collected data (via email) from accommodation providers. At the time of data collection, 666 establishments in the Czech Republic were listed in Hotelstars Union (2021). In total, we received responses from 131 hotels (54.2%) and guesthouses (45.8%) across the Czech Republic, ranging from one to five stars, which accounts for almost 20% return rate. We also used the quota sample based on the official accommodation category. The detailed quota calculation can be found in Table 4.

Table 4 Accommodation establishment quota calculation
(Source: Hotelstars Union, 2021)

Category	Number of accommodations CZ	Percentage of accommodations CZ	Number of accommodations Sample	Percentage of accommodations Sample
*	76	11.41	15	11.45
**	92	13.81	24	18.32
***	294	44.14	51	38.93
****	199	29.88	40	30.53
*****	5	0.75	1	0.76

Result and discussion

The various restrictions imposed by governments around the world as a result of the COVID-19 pandemic provide an opportunity for domestic tourism in the Czech Republic, especially in rural areas. In addition, more than 72% of the hotels and guesthouses surveyed in 2021 focus primarily on Czech visitors.

On the other hand, the COVID-19 pandemic poses a number of challenges to the entire tourism industry. The results of this study show that more than 50% of the respondents either canceled their vacation plans themselves or they were canceled by the agency offering the vacation. In addition, booking a vacation usually occurs a few days before the trip (more than 37% of respondents) or no more than two weeks before the trip (more than 25%). The rapid increase in room bookings just a few days before the trip is also confirmed by the data collected from accommodation providers. Before the pandemic COVID-19, only 8.4% of bookings were made a few days before travel, while during the pandemic it was 54.2% of bookings.

Looking more closely at the hospitality industry, nearly 75% of respondents plan to stay in a hotel as soon as the pandemic situation will allow it. In addition, nearly 58% of respondents agree or somewhat agree that hotel COVID-19 measures will help reduce the potential spread of the virus. All measures surveyed can be seen in Table 3. The most important measure was wearing face masks indoors at the hotel, followed by maintaining a 2-meter safety distance, providing disinfectants, and allowing food to be ordered into a hotel room. In contrast, the less important COVID-19 measures in Czech hotels and guesthouses included reduced hotel capacity, reduced contact with hotel staff, and check-in or check-out via app.

In addition, a dependency analysis was conducted to examine the impact of the COVID-19 measures in the hotel industry in the Czech Republic on the personal characteristics of domestic visitors. The results can be found in Table 5 below.

Similar to previous studies (Beck & Hensher, 2020; Czeisler et al., 2020; Frederiksen et al., 2020), gender was found to have a strong influence on all factors examined, with the exception of the requirement for a face mask and reduced contact with hotel staff. In each case, women rated the COVID-19 measure factors higher than men.

In addition, education has a significant impact on the factors of disinfection offered and ordering food in the hotel room. In this case, respondents with higher education rated these two factors higher. These results are also consistent with the findings of other researchers, e.g., Karpinska-Krakowiak, 2021 or Yasir et al., 2020.

Table 5 Dependency analysis: the influence of customer socio-demographic characteristics on safety requirements

Factor	KW test gender	KW test education	KW test age	KW test residence
Face mask requirement	NO	NO	NO	NO
Maintaining a safe distance	YES	NO	NO	NO
Provided disinfection	YES+	YES+	NO	NO
Ordering food to a hotel room	YES+	YES+	YES	NO
Reduced hotel capacity	YES+	NO	NO	NO
Reduced contact with hotel staff	NO	NO	YES+	NO
Check-in/out app	YES+	NO	YES	YES+

Note:
YES+ → dependence of the given variable on the particular respondents' characteristic was proven at 5 % significance level.
YES → dependence of the given variable on the particular respondents' characteristic was proven at 10 % significance level.
NO → dependence of the given variable on the particular respondents' characteristic was not proven.

The age of the respondents was found to have an influence on three factors. Namely, ordering food to a hotel room, reduced contact with hotel staff, and the check-in/out app. Each of these factors was rated highest by younger respondents (under 25). This could be due to the more technical side of these three factors, as older tourists may have difficulty understanding how to check in/out via app or order food to a hotel room. This goes hand in hand with a higher level of engagement from hotel staff. Therefore, reducing contact with hotel staff may not be as important to them as it is to younger generations. Considering the results of previous studies (Aschauer, 2010; Khan et al., 2018; Senbeto & Hon, 2020), we can also conclude that older tourists are less likely than younger tourists to intend to travel during the COVID-19 pandemic.

Looking at the implementation of the above-mentioned measures, it can be seen that most of the hotels and guesthouses surveyed in this study have already reduced their capacity and implemented a safety distance of 2 meters (66.4%). In addition, 22.1% offer room service and 19.1% use digital check-in/out.

The entire segmentation, customer structure and their expectations have changed rapidly in the tourism and hotel industry. Today's customer values healthy measures, strict hygienic habits, safe accommodations, environmentally friendly management, uniqueness, and good quality of the product. International hotel chains, in particular, have a great influence on the implementation of these new standards. Smaller and individual hotels, on the other hand, have not adapted to the right processes and procedures, as this new composition of clientele could cause them significant negative economic impacts and customer losses, leading to existential problems for many lodging establishments. Accurate knowledge and influence of customers' socio-demographic characteristics on their security needs and trends is one way to make the smaller lodging establishments more competitive and attract more guests.

Conclusion

Although the tourism sector is facing an unprecedented decline in visitor numbers, the trust in the hospitality industry can be gained by lifting travel restrictions (Shin & Kang, 2020) and implementing safety measures. One of the most important measures in the hospitality industry is the face mask requirement and social distancing. Moreover, there are differences in the perception of these measures based on gender, age, and education of the respondents. Therefore, it is inevitable to consider the characteristics of hotel visitors when implementing COVID-19 measures. This is especially true for older guests and the implementation of more technical measures, such as check-in and check-out via an app.

The pandemic also resulted in an increased number of bookings just days before travel, as well as a rapid increase in canceled bookings due to COVID-19. It is therefore advisable that hospitality establishments facilitate cancelation policies related to COVID-19 (positive test or quarantine).

This paper provides preliminary insights into the impact of the COVID-19 pandemic on the hospitality industry, focusing on differences in customer perceptions of safety requirements. However, the current study has a few limitations. First and foremost, the results of this study cannot be generalized due to the location of the study and its sample. This study focuses only on domestic tourists, who may have different perceptions of COVID-19 hotel measures than international tourists. Therefore, further research should focus on international tourists' perceptions of safety and COVID-19 measures to obtain a complete picture of safety perceptions in the hotel industry. Second, we only used gender as a quota sample in our preliminary study. Therefore, the results of the dependency analysis could be influenced to some extent by the demographic distribution of the respondents. It would be recommended to conduct a similar survey with a more robust quota sample and utilize Computer-Assisted Personal Interviewing (CAPI) or in-person surveys to obtain relevant data.

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References

Abubakirova, A., Syzdykova, A., Kelesbayev, D. et al. (2016). Place of Tourism in the Economy of Kazakhstan Republic. *Procedia Economics and Finance*, 39, 3-6. DOI: 10.1016/S2212-5671(16)30232-5.

Aharon, D. Y., Arie J., Cohen, E. et al. (2021). COVID-19, government measures and hospitality industry performance. *PLOS ONE*, 16(8). DOI: 10.1371/journal.pone.0255819.

Aschauer, W. (2010). Perceptions of tourists at risky destinations. A model of psychological influence factors. *Tourism Review*, 65(2), 4–20. DOI: 10.1108/16605371011061589.

Beck, M. J., & Hensher, D. A. (2020). *Insights into the Impact of Covid-19 on Household Travel, Working, Activities and Shopping in Australia – the Early Days under Restrictions*. Working paper ITLS-WP-20-09. Sydney, Australia: Institute of Transport and Logistic Studies (ITLS), The University of Sydney Business School.

Benaben, F., Lauras, M., Trupil, S. et al. (2016). A metamodel for Knowledge Management in Crisis Management [Paper presentation]. *The 49th Hawaii International Conference on System Sciences (HICSS 2016)*. Koloa: HI.

Czech Statistical Office (2019). *Population by five - year age groups* [online]. [cit. 2021-01-03]. Retrieved from https://vdb.czso.cz/vdbvo2/faces/en/index.jsf?page=vystup-objekt&pvo=DEMD003&z=T&f=TABULKA&katalog=33156&str=v1525&c=v3~2__RP2019MP12DP31.

CzechTourism (2021a). *Aktualizovaná analýza Dopady COVID 2020 a predikce roku 2021*/Updated analysis of Impacts of COVID 2020 and predictions of 2021 [online]. [cit. 2022-01-31]. Retrieved from https://tourdata.cz/data/aktualizovana-analyza-dopady-covid-2020-a-predikce-roku-2021/.

CzechTourism (2021b). *Collective accommodation establishments of the Czech Republic 2016 – 2021* [online]. [cit. 2022-01-31]. Retrieved from https://tourdata.cz/english/collective-accommodation-establishments-of-the-czech-republic-2016-2021/.

CzechTourism (2022). *Příjezdový a domácí cestovní ruch 2021*/Inbound and domestic tourism 2021 [online]. [cit. 2022-03-03]. Retrieved from https://tourdata.cz/data/prijezdovy-a-domaci-cestovni-ruch-2021/.

Czeisler M. É., Tynan M. A., Howard M. E. et al. (2020). Public Attitudes, Behaviors, and Beliefs Related to COVID-19, Stay-at-Home Orders, Nonessential Business Closures, and Public Health Guidance - United States, New York City, and Los Angeles. *MMWR MORB MORTal WKLy Rep.*, 69(24), 751–758. DOI: 10.15585/mmwr.mm6924e1.

Djeri, L., Stamenković, P., Blešić, I. et al. (2018). An importance-performance analysis of destination competitiveness factors: case of Jablanica district in Serbia. *Economic Research-Ekonomska Istraživanja*, 31(1), 811-826. DOI: 10.1080/1331677X.2018.1456351.

Engemann, K. M., & Wall, H. J. (2009). The effects of recessions across demographic groups. *Federal Reserve Bank of St. Louis*, 92 (1), 1–26.

Frederiksen, B., Gomez, I., Salganicoff, A. et al. (2020). *Coronavirus: A Look at Gender Differences in Awareness and Actions*. The Henry J. Kaiser Family Foundation [online]. [cit. 2020-11-24]. Retrieved from https://www.kff.org/womens-health-policy/issue-brief/coronavirus-a-look-at-gender-differencs-in-awareness-and-actions/.

Gössling, S., Scott, D., Hall, C. M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1-20. DOI: 10.1080/09669582.2020.1758708.

Hotelstars Union (2021). *Official standard classification of the accommodation facilities in the Czech Republic* [online]. [cit. 2021-01-03]. Retrieved from http://www.hsukatalog.cz/en/ubytovaci-zarizeni/.

Institute for Economics & Peace (2021). *Global Peace Index 2021: Measuring Peace in a Complex World, Sydney* [online]. [cit. 2022-02-09] Retrieved from https://www.visionofhumanity.org/resources/.

Israeli, A. A., Mohsin, A., & Kumar, B. (2011). Hospitality crisis management practices: The case of Indian luxury hotels. *International Journal of Hospitality Management*, 30(2), 367–374. DOI: 10.1016/j.ijhm.2010.06.009.

Jiang, Y., & Wen, J. (2020). Effects of COVID-19 on hotel marketing and management: a perspective article. *International Journal of Contemporary Hospitality Management*, 32(8), 2563-2573. DOI: 10.1108/IJCHM-03-2020-0237.

Karpinska-Krakowiak, M. (2021). Women are more likely to buy unknown brands than men: the effects of gender and known versus unknown brands on purchase intentions. *Journal of Retailing and Consumer Services*, 58, 102273. DOI: 10.1016/j.jretconser.2020.102273.

Kaswengi, J., & Diallo, M. F. (2015). Consumer choice of store brands across store formats: a panel data analysis under crisis periods. *Journal of Retailing and Consumer Services*, 23, 70–76. DOI: 10.1016/j.jretconser.2014.12.003.

Khan, K. I., Niazi A., Nasir A. et al. (2021). The Effect of COVID-19 on the Hospitality Industry: The Implication for Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 30. DOI: 10.3390/joitmc7010030.

Khan, M. J., Chelliah, S., & Ahmed, S. (2018). Intention to visit India among potential travelers: Role of travel motivation, perceived travel risks, and travel constraints. *Tourism and Hospitality Research*, 19(3), 351–367. DOI: 10.1177/1467358417751025.

Laerd Statistics (2018). *Kruskal-Wallis H Test using SPSS Statistics*. Statistics Laerd [online]. [cit. 2022-01-31] Retrieved from https://statistics.laerd.com/spss-tutorials/kruskal-wallis-h-test-using-spss-statistics.php.

Lai I. K. W., & Wong J. W. C. (2020). Comparing crisis management practices in the hotel industry between initial and pandemic stages of COVID-19. *International Journal of Contemporary Hospitality Management*, 32(10), 3135–3156. DOI: 10.1108/IJCHM-04-2020-0325.

Liu B., Pennington-Gray L., & Klemmer, L. (2015). Using social media in hotel crisis management: the case of bed bugs. *Journal of Hospitality and Tourism Technology*, 6(2), 102–112. DOI: 10.1108/JHTT-08-2014-0036.

Matiza, T., & Slabbert, E. (2021). Tourism is too dangerous! Perceived risk and the subjective safety of tourism activity in the era of COVID-19. *GeoJournal of Tourism and Geosites*, 36(2), 580-588. DOI: 10.30892/gtg.362spl04-686.

Ming, Q., & Zhong, D. (2020). The Impact of the Novel Coronavirus Epidemic on China's Tourism Industry and Its Countermeasures. *Academic Exploration*, 2020(3), 124-131.

Ministry of Health (2021) *Accommodation* [online]. [cit. 2021-01-03]. Retrieved from https://covid.gov.cz/en/situations/shops-and-services/accommodation.

Musavengane, R., Siakwah, P., & Leonard, L. (2019). "Does the poor matter" in pro-poor driven sub-Saharan African cities? Towards progressive and inclusive pro-poor tourism. *International Journal of Tourism Cities*, 5(3), 392–411. DOI: 10.1108/IJTC-05-2019-0057.

Neuburger, L., & Egger, R. (2021). Travel risk perception and travel behavior during the COVID-19 pandemic 2020: a case study of the DACH region. *Current Issues in Tourism*, 24(7), 1003-016. DOI: 10.1080/13683500.2020.1803807.

Pavlatos O., Kostakis H., & Digkas, D. (2020). Crisis management in the Greek hotel industry in response to COVID-19 pandemic. *Anatolia*, 32(1), 80–92. DOI: 10.1080/13032917.2020.1850485.

Rivera, M. A. (2020). Hitting the reset button for hospitality research in time of crisis: Covid19 and beyond. *International Journal of Hospitality Management*, 87, 102528. DOI: 10.1016/j.ijhm.2020.102528.

Robina-Ramírez, R., Medina-Merodio, J. A., Moreno-Luna, L. et al. (2021). Safety and health measures for COVID-19 transition period in the hotel industry in Spain. *International Journal of Environmental Research and Public Health*, 18, 718. DOI: 10.3390/ijerph18020718.

Sánchez-Cañizares, S. M., Cabeza-Ramírez, L. J., Muñoz-Fernández, G. et al. (2020). Impact of the perceived risk from Covid-19 on intention to travel. *Current Issues in Tourism*, 24, 970–984. DOI: 10.1080/13683500.2020.1829571.

Senbeto, D. L., & Hon, A. H. Y. (2020). The impacts of social and economic crises on tourist behaviour and expenditure: an evolutionary approach. *Current Issues in Tourism*, 23 (6), 740–755. DOI: 10.1080/13683500.2018.1546674.

Sheskin, D. J. (2011). *Handbook of parametric and nonparametric statistical procedures*. Fifth Edition. : Chapman and Hall/CRC Press.

Shin, H., & Kang, J. (2020). Reducing perceived health risk to attract hotel customers in the COVID-19 pandemic era: Focused on technology innovation for social distancing and cleanliness. *International Journal of Hospitality Management*, 91, 10266. DOI: 10.1016/j.ijhm.2020.102664.

Soukiazis, E., & Proenca, S. (2008). Tourism as an alternative source of regional growth in Portugal: A panel data analysis at NUTS II and III levels. *Portuguese Economic Journal*, 7(1), 43-61. DOI: 10.1007/s10258-007-0022-0.

Stergiou, D. P., & Farmaki, A. (2021). Ability and willingness to work during COVID-19 pandemic: Perspectives of front-line hotel employees. *International Journal of Hospitality Management*, 93, 102770. DOI: 10.1016/j.ijhm.2020.102770.

Tourist Authority - South Moravia (2021). *Strategie rozvoje cestovního ruchu Jihomoravského kraje*/Tourism development strategy of the South Moravian region 2021-2025, KPMG Česká republika [online]. [cit. 2022-02-05]. Retrieved from https://www.jmk.cz/content/8564.

Tse, A. C. B., So, S., & Sin, L. (2006). Crisis management and recovery: How restaurants in Hong Kong responded to SARS. *International Journal of Hospitality Management*, 25(1), 3–11. DOI: 10.1016/j.ijhm.2004.12.001.

United Nations (2020). COVID-19 and Transforming Tourism. (August), Policy Brief. United Nations [online]. [cit. 2022-01-31] Retrieved from https://www.un.org/sites/un2.un.org/files/sg_policy_brief_covid-19_tourism_august_2020.pdf.

UNWTO (2022). UNWTO Global Tourism Dashboard. [online]. [cit. 2022-02-08] Retrieved from https://www.unwto.org/international-tourism-and-covid-19.

Vaishar, A., & Šťastná, M. (2020). Impact of the COVID-19 pandemic on rural tourism in Czechia Preliminary considerations. *Current Issues in Tourism*, 25(2), 187-191. DOI: 10.1080/13683500.2020.1839027.

Vojtko, V., Štumpf P., Rašovská I. et al. (2020). Removing Uncontrollable Factors in Benchmarking Tourism Destination Satisfaction. *Journal of Travel Research*, 61(1), 136-149. DOI: 10.1177/0047287520971047.

World Travel & Tourism Council (2021). *Travel & Tourism Economic Impact 2021* [online]. [cit. 2022-02-08] Retrieved from https://wttc.org/Portals/0/Documents/Reports/2021/Global%20Economic%20Impact%20and%20Trends%202021.pdf?ver=2021-07-01-114957-177.

Yang, Y., Zhang, H., & Chen, X. (2020). Coronavirus pandemic and tourism: Dynamic stochastic general equilibrium modeling of infectious disease outbreak. *Annals of tourism research*, 83, 102913. DOI: 10.1016/j.annals.2020.102913.

Yasir, A., Hu, X., Ahmad, M., Rauf, A. et al. (2020). Modeling impact of word of mouth and E-government on online social presence during COVID-19 outbreak: a multi-mediation approach. *International Journal of Environmental Research and Public Health*, 17, 2954. DOI: 10.3390/ijerph17082954.

Yu, J., Seo, J., & Hyun, S. S. (2021). Perceived hygiene attributes in the hotel industry: Customer retention amid the COVID-19 crisis. *International Journal of Hospitality Management*, 93, 102768. DOI: 10.1016/j.ijhm.2020.102768.