The Effects of Novel Coronavirus (COVID-19) on Hospitality Industry: A Case Study

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Abstract

This study aims to investigate the effects of the coronavirus epidemic on hospitality industry. In the study, evaluations were made by taking into consideration both the guest statistics and the opinions of the managers of the business. The analysis was done with the help of Excel and MAXQDA programs. As a result of the analysis, serious decreases were observed in both the group and individual sales in the overnight stay, income, incoming guests and occupancy rates of the business after the outbreak of the epidemic. The epidemic also affected the business in the short term in terms of crisis management and psychology. This study is one of the field studies showing the repercussions of the coronavirus on tourism with the help of data. It also provides an insight into how hospitality businesses are acting in such a crisis situation. Therefore, the work is considered to have an important place in the literature.

Keywords

Hospitality industry
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INTRODUCTION

In the 21st century, when globalization surrounds the world, the tourism industry is growing at a faster rate day by day (Tosun et al. 2003; Oh, 2005; Raymond and Brown, 2007; Tang and Abosedra, 2012; Tang and Tan, 2013; Cárdenas-García et al. 2015; Fahimi et al., 2018). This growth especially accelerated after World War II (Eadington and Redman, 1991). Smith (1998) states that mass tourism has had a significant upward trend since World War II and the historical perspective developed here indicates that contemporary mass tourism was initially small in scale and later expanded in connection with European and American overseas travels during the post-war era of restructuring. For example, according to international tourist arrival statistics, while 25 million people travelled in 1950, this number increased to 459 million in 1990 (Jayawardena, 2002). These travel numbers increased to levels as high as 1.4 billion in 2018. In the same year, the economic power of international tourism increased as well. Tourism accounts for 7% of total global exports and 29% of world services exports (UNWTO, 2019). Many factors affect this growth positively, especially the improvement of the welfare level of the societies, and the increase in the disposable income and spare time of individuals (Lickorish et al., 1997). However, the tourism industry has a vulnerable and dynamic structure that can be affected very quickly by external events (Gamble, 1992; Lee and Harrald, 1999; Soyak, 2013). There is a very important element that fuels this dynamic structure and constitutes an important aspect of globalization. This element is Information and Communication technologies. Each development in these technologies enables people to receive instant news even about events in faraway places. Therefore, the smallest misfortune that can affect tourism activities in a destination spreads immediately and affects the ideas of potential tourism demand (Buhalis and Law, 2008; Xiang and Gretzel, 2010; Paraskevas et al., 2013; Nezakati et al., 2015; Del Chiappa and Baggio, 2015). Indeed, touristic destinations carry out activities in order to become smart with digitalization (Wang et al., 2013; Buhalis and Amaranggana, 2014; Boes et al., 2015). Mobile technologies in particular have a critical function at this point (Eriksson, 2012; Egger, 2013).

Crisis is one of the events by which the tourism industry is most affected due to its dynamic structure. Economic crises are among the significant events affecting the tourism industry (Pambudi et al., 2009; Papatheodorou et al., 2010; Styliidis and Terzidou, 2014). The international scope of these crises deepens their possible effects on tourism. The best example of this is the 2008 economic crisis. There are many statistics about the effects of this crisis on international tourism movements in the world. For instance, in the period of April/January 2009, there was an 8% decrease in international arrivals compared to the same period of the previous year. Likewise, an 8% drop in airline passenger traffic occurred. Accommodation statistics also support this decline. For instance, accommodation statistics in 2009 for the Asia-Pacific region and Europe showed a decline of around 30% and about 33%, respectively (Smeral, 2009; UNWTO, 2009). The economic crises affect both supply and demand in tourism. For, along with the economic crisis, the impacts on the purchasing power of citizens due to unemployment (Alegre et al., 2013) in the country where the crisis is experienced cause a contraction in tourism demand (Dynarski and Sheffrin, 1987; Arulampalam, 2001). Indeed, the reason for the contraction in tourism in 2009 due to the 2008 crisis is the decrease in GDP per capita. Due to this crisis, GDP per capita saw a decrease of 3.39% in the world, 4.37% in the European Union countries and 4.74% in the USA (Eugenio-Martin and Campos-Soria, 2014). In addition, the disruption of investment activities due to economic crises also brings about contraction in the supply of tourism in the long term.
Diplomatic and political crises are among the other important crises that affect the tourism industry. Political tensions between two countries cause these countries to impose embargo against each other. Thus, there may be a contraction in the travels of citizens of any country to another country (Gilss, 2008) because tourists can be targeted at in countries with political instability (Hall and O'Sullivan, 1996). Diplomatic and political tensions in the second half of the 20th century, especially the energy-related crises, affect tourism movements (Hall, 2010). The bipolar system called the Cold War further deepened the diplomatic and political tensions affecting the world in many respects, especially in tourism.

The dynamic nature of tourism causes the developments in the industry to be affected by natural disasters as well. Especially natural disasters such as earthquakes, floods, tornadoes, hurricanes, volcanic eruptions and so on cause a contraction in tourism demand (Huang and Min, 2002; Tse, 2006; Aguirre, 2007; Erol, 2010; Hall, 2010; Walters et al. 2016).

Personal safety is the most important factor for tourists during touristic activities (Hall et al., 2003). In this sense, war and terrorism, which are among the most important problems that threaten the security of tourists, negatively affect tourism activities (Smith, 1998; Faulkner, 2001; Thompson, 2011). For example, in the regions where the Gulf War occurred in 1991 and the September 11 attacks took place in 2001, there was a contraction in tourism demand for the following years (Scott and Laws, 2005). Indeed, there is such a great interaction between terrorism and tourism that touristic destinations became the intended targets of terrorist activities in certain periods of history (Sönmez et al., 1999; Pizam and Smith, 2000). An attack on foreign tourists is an action that weakens the local government in power through the loss of tourism revenues. It is estimated that this link between terrorism and tourism will increase due to the fact that the problem is not new, and its political and economic effects are likely to grow further (Richter and Waugh 1991). These terrorist acts aim to create an unsafe image for the tourist destination, thereby scaring tourists and preventing their visits (Sonmez, 1998). Another important reason why tourists refrain from traveling due to safety concerns is health (Chen et al., 2004). In this research, the effects of the coronavirus epidemic, which broke out in China in recent months and had international impacts, on the hospitality industry. Detailed information on this subject is given in the following sections of the research.

**Repercussions of Epidemic Diseases on Tourism**

Health-related crises are among the most important factors affecting tourism. They cause a contraction in tourism demand, especially as epidemics prevent travel. Accordingly, there are many diseases occurring and relevant academic studies (Scott and Laws, 2005). The foot-and-mouth disease epidemic, which emerged in the United Kingdom in 2001 (Haydon et al., 2004), is known to have adversely affected the tourism sector due to its spread through contact with animals or their elements and respiration, causing a contraction in tourism demand (Baxter and Bowen, 2004).

Another major epidemic that caused a narrowing in tourism demand is the SARS (severe acute respiratory syndrome) epidemic that occurred in Asian countries such as China, Hong Kong, Singapore and Vietnam in the beginning of 2002 and later impacted the whole world (McAleer et al., 2010). The SARS epidemic led to a decrease in tourism demand in different parts of the world, especially in the countries of the Asian continent (Pine and McKercher, 2004). Pine and McKercher put forth the impacts of the SARS epidemic on the tourism mobilities in
Hong Kong and other Southeast Asian countries, expressing that the hotel businesses suffered most. It is also known that different studies on how the SARS epidemic led to contraction in tourism demand exist (Kuo et al., 2007).

Avian influenza is another important epidemic disease giving rise to narrowing in tourism demand. Although there are different opinions as to when the disease first appeared, the origin of this disease is in Hong Kong, China and other Asian countries. Later, this disease became a worldwide epidemic and resulted in the death of many people (Lee and Chen, 2011). Avian influenza caused shock drops in tourism, indicating that it could cause a deeper security crisis for travel. These declines were temporary. However, in the short and medium term, it led to bankruptcy and termination of activities in tourism businesses, especially in hospitality businesses (Page et al., 2006).

Swine flu was seen in the USA in 2009 and affected many countries. Swine flu (Haque and Haque, 2018), which can easily be transmitted from one person to another in different ways, caused a decline in tourism movements.

Another epidemic that caused a narrowing in tourism movements had its origin in Africa. The Ebola outbreak that occurred in Guinea in 2013 caused declines in tourism mobilities even in destinations outside the countries where it was seen (Mizrachi and Fuchs, 2016). In their study, Çeti and Ünlüönen (2019) revealed that there was a serious decrease of 40% in the number of tourists in Guinea, where the Ebola epidemic occurred. In a study, Kongoley (2015) states that the Ebola virus negatively affected the tourism and hospitality industries in Liberia and Sierra Leone in addition to Guinea. It has been revealed that there were also decreases in items such as employment, occupancy rate and income in the related industries.

While these outbreaks emerging especially in the 2000s caused contraction in tourism demand, it is thought that the coronavirus will cause much more contraction in tourism demand than all of them did, given that its spreading speed and lethal impact on humans are higher than those of other epidemics. Furthermore, in the visual and written media, especially in social media, the subject constantly occupies the agenda and makes people nervous. As a result of this uneasiness, people either cancel their travel plans or postpone them. In the following sections of this research, coronavirus and its potential repercussions on tourism are discussed. Especially because there are no research articles focusing on the possible impacts of the epidemic on tourism, evaluations were made based on the websites.

**Coronavirus**

The coronavirus belongs to the Coronavirido family and the Nidouirales group (Huang et al., 2020). The virus is among the respiratory, enteric, hepatic and neurological diseases that are becoming widespread in many mammals, humans and bird species (Song et al., 2020; Lu et al., 2020). Also, it is one of the RNA-enveloped viruses (Song et al., 2020). Six types of the virus affect human health. While four of them, 229E, OC43, NL63 and HKU1, are common, the virus shows its effect only in the form of common cold in people with stronger immune systems. The other two types are coronavirus (SARS-CoV), which caused severe acute respiratory tract infections in 2002, and the Middle East respiratory coronavirus (MERS-CoV) of 2012 (Zhu et al., 2020).

In 2003, coronavirus (SARS-CoV) became an international epidemic with a patient mortality rate of 10% (Wang et al., 2020). The epidemic caused the death of 774 out of approximately 8098 people infected with the disease. MERS-CoV first appeared in Saudi Arabia in 2012 (Li and McCray Jr., 2020). Bats are thought to be a source of coronavirus (Chu et al., 2020; Killerby et al., 2020; Menachery et al., 2020). The MERS-CoV virus could cause acute respiratory tract infection, multiple organ failure, and finally death (Li and McCray, 2020). In addition, the virus
caused the death of approximately 850 out of 2494 patients (Chung et al., 2020). While the mortality rate for SARS was 10%, that of coronavirus in 2012 was 35%. Although the death rate was high, the rate of spread was low. The opposite is true for COVID-19, though. While the rate of spread is high in the new coronavirus, the mortality rate is low. This virus is also seen in camels. Both are zoonotic (Chu et al., 2020). Finally, this new virus, which is the third, has been called 2019-nCoV coronavirus in the area of medicine (Munster et al., 2020; Gralinski and Menachery, 2020).

2019-nCoV belongs to lineage B from the Beta coronavirus family (Wang et al., 2020). It is associated with the aforementioned viruses, but differentiated from them by undergoing mutation over time (Backer et al., 2020). The virus is transmitted from person to person through droplets or direct contact. The incubation period of the virus was calculated to be 6.4 days, and the reproduction number was calculated to range between 2.24-3.58. The symptoms in those infected with the new coronavirus pneumonia or Wuhan pneumonia virus are fever and subsequent coughing (Huang et al., 2020). Later, symptoms such as fatigue, headache and sputum are observed (Paules et al., 2020). People who died due to the 2019-nCoV virus experienced severe pneumonia, pulmonary edema, ARDS, or multiple organ failure (Chen et al., 2020).

The coronavirus (2019-nCoV) emerging in China is spreading gradually, creating a global health problem (Phan et al., 2020; Lai et al., 2020; Munster et al., 2020; Wang et al., 2020; Corman et al., 2020; Menachery et al., 2020; Chang et al., 2020). The virus first appeared in the city of Wuhan in the Hubei province of China in December 2019 (Corman et al., 2020; Gralinski and Menachery, 2020). 49% of the cases were found to have been to the Huanan seafood market before being infected with the epidemic (Wang et al., 2020; Li et al., 2020; Perlman, 2020). Many of the patients infected before January 1, 2020 have been confirmed to be associated with the Huanan seafood wholesale market compared to subsequent patients (Chang et al., 2020; Holshue et al., 2020). The number of cases in Wuhan is around 1700 (Du Toit, 2020). The number of cases increased by several times in 7-7.4 days. At intervals of approximately 7.5 days (95% CI, 5.3 and 1.9), it reaches the number equal to 2.2 times the basic reproduction number (95% CI, 1.4 and 3.9) (Li et al., 2020).

The virus has spread to many parts of the world, especially to Asian and American countries such as Thailand, Japan, Korea, USA, Vietnam and Singapore (Corman et al., 2020). In addition, the numbers are increasing rapidly in Germany, France, UAE and 24 countries (Grifoni et al., 2020). Especially in Iran and Italy, there are serious increases in the number of cases and deaths.

Possible Effects of Coronavirus on Tourism Industry

The coronavirus outbreak in China affects the tourism market like all areas negatively (www.ft.com, 2020). Nearly $ 50 billion of losses in the Chinese tourism market due to SARS in 2003 also adversely affected the global tourism market (www.weforum.org, 2020). According to UNWTO, China is the world's largest consumer and it accounts for 16% of tourism expenditures (www.edition.cnn.com, 2020a). With the new coronavirus, the famous Chinese tourism market is already in decline. The number of people coming to China has been decreasing since January, and the government estimates that the number of Chinese travelers will decrease by about 2 million (www.theatlantic.com, 2020). With the ban on travel in China, reservations have dropped by 6.8% (www.edition.cnn.com, 2020a).
For the first time outside of China, the virus was reported in Thailand in January 2020 (www.pharmaceutical-tecnology.com, 2020a). Thailand tourism, which hosts approximately 11 million Chinese tourists a year, has been negatively affected by the virus like other countries (www.foreignpolicy.com, 2020). The relevant authorities which had estimated a 1.5% to 2.5% increase in tourism this year have reduced this estimate after the emergence of the virus (www.bloomberg.com, 2020). The number of Chinese tourists in Thailand is expected to drop in 2020 (www.thediplomat.com, 2020; www.thejakartapost.com, 2020). Similarly, over 40,000 hotel reservations have been cancelled on the island of Bali, Indonesia.

Vietnam is also thought to be losing billions of dollars in tourism revenues (www.theatlantic.com, 2020). Vietnam is likely to lose $4 billion in just three months (www.businessinsider.com, 2020). Like other countries, Vietnam has taken some precautions and suspended all flights to China and many countries indefinitely due to coronavirus (vietnam.travel, 2020). The coronavirus outbreak has adversely affected the development of tourism in many other countries outside Vietnam (www.vietnamin sider.vn, 2020). Countries are engaged in an ongoing struggle against the virus (www.dw.com, 2020). Countries such as Malaysia, Thailand and Japan are taking measures and steps against the virus (www.pharmaceutical-teknology.com, 2020b; www.voa news.com, 2020). With the complete ban on Chinese tourists in Thailand, almost no Chinese tourists can go to Thailand’s Koh Lahta island, and recovery works are being carried out on the island against the virus (www.time.com, 2020).

Singapore aims at a strong improvement concerning the subject (www.ausleisure.com, 2020). With the coronavirus epidemic, the tourism industry in Singapore is also affected, and firms send their staff on leave because of the recession (www.straitstimes.com, 2020). Rescue activities worth $27 million have been started for tourism in Queenslanders, which is under quarantine in Australia. Australian officials have also launched a $7 million global campaign to attract tourists from Japan, the USA and New Zealand (www.brisbanetimes.com, 2020).

Virus cases and deaths have also been reported in France, one of the most visited countries in the world (www.cnbc.com, 2020). The first coronavirus-related death in Europe occurred in France (www.theguardian.com, 2020). This situation is expected to lead to a decline in tourism in 2020 for France, which hosts approximately 2.7 million Chinese tourists each year (www.cnbc.com, 2020). Indeed, the number of Chinese tourists in many areas such as the streets of Paris, the Burgundy vineyards, the German town of Füssen and England’s Oxfordshire is gradually decreasing due to the ban on group tours from Beijing (www.nytimes.com, 2020).

As of March 3, it is thought that there are 268 people detected in Japan with the new coronavirus (japan.travel, 2020). According to the national tourism organization of Japan, the number of tourists visiting the country for tourism and business purposes decreased from 2.69 million to 2.66 million, with a drop of 1.1% (www.reuters.com, 2020). With the advent of the epidemic, the “vacant tourism” campaign has started on the historical streets of Kyoto, which welcomes many tourists as a world heritage site. There are decreases in the number of tourists in Japan’s famous tourism destinations. Moreover, there are significant reductions in many tourism regions not only in Japan but also in Asia (www.edition.cnn.com, 2020b).

It is thought that Italian tourism will also be negatively affected. According to the World Tourism Organization, Chinese tourists who spent $10 billion in the early 2000s spent $277 billion in 2018. However, due to the coronavirus epidemic, the travels and expenditures of Chinese tourists will decrease, which will cause a narrowing in international tourism mobilities (www.nytimes.com, 2020). The virus also adversely affects Dubai, the host of Expo202
undermining its potential to meet its target of 11 million tourists (www.aljazeera.com, 2020). The tourism industry of Northern Ireland has been affected by this virus, too, and nearly 3,000 bookings have been cancelled by Chinese tourists between January and March (www.bbc.com, 2020).

The coronavirus is also spreading in the USA, which negatively affects the US tourism industry (www.wsj.com, 2020). Due to COVID-19, reported to be the novel Coronavirus, travel between the USA and China has been suspended until April 19 (www.fox13now.com, 2020). With the coronavirus epidemic, international tourism is expected to lose 80 billion US dollars, and the Asian region is estimated to suffer the most (www.scmp.com, 2020). The coronavirus has particularly hit tourism in eastern Asia (www.france24.com, 2020; www.jpost.com, 2020). Israel has also experienced declines due to the virus (www.jpost.com, 2020).

It is thought that the negative effects of coronavirus on tourism will continue until 2021 and they will be long-term (www.japantimes.co.jp, 2020; www.airport-technoloy.com, 2020).

Method

This study aims to investigate the effects of coronavirus epidemic on hospitality industry. Hence, the initial question was: What are the possible implications of the coronavirus epidemic on hospitality businesses? The fact that the epidemic has affected many different areas, especially interactive areas such as travel, sports and politics shows that this epidemic will have consequences for the hospitality industry as well. The research is significant in that it reveals the effects of this global problem on hospitality businesses, and that it is one of the first studies about the impacts of the virus on tourism. The emergence of the virus in China makes studies on its effects on tourism even more important because in terms of both population and development level, China is among the major countries with the highest potential for the tourism industry.

In the research, mixed research methods (quantitative and qualitative) were used. After the quantitative data collection and analysis processes, the qualitative data collection and analysis process was followed. Therefore, Sequential Explanatory Design mixed analysis method was used in the study (Creswell et al., 2003). The data obtained by the second stage with the qualitative data collection and analysis process, are tried to be purged with quantitative analysis results (Ivankova et al., 2006). With the in-depth information obtained as a result of the interviews, the quantitative results are aimed to gain a more descriptive identity (Rossman and Wilson 1985). Primarily, the study is a case study because it is based on a single hospitality business. This business operates in Istanbul and hosts guests only from the Far East and Middle East regions. The enterprise was chosen for this reason, and for the purposes of the research, it is required to limit the analysis of the effects of the virus specifically for this enterprise.

To this end, the numbers of accommodation and reservations for the business in January and June were obtained separately for 2019 and 2020. The results are directly linked to the reports of the Opera Hotel Automation Program used by the front office department of the business. These data were analyzed using the Excel program (Özsoy, 2014) and estimates for 2020 were made.

Another data collection tool used in the research is interviews. In accordance with the objectives of the study, 10 questions were designed by the researchers; later, they were narrowed down upon expert opinions (Punch, 2016; Creswell, 2017) and an interview form with 6 questions was prepared. Data were obtained through structured
interviews with the group sales representative, sales and marketing director and e-sales managers of the business. The structured interview was a deliberate choice in order to determine the effects of the coronavirus epidemic without the intervention of the researchers. Thus, it was aimed to find out what the managers really feel and what problems the business is facing. In order to ensure reliability in the qualitative research, the interviews were recorded by sound recording method. The data obtained during the interviews were analyzed using the MAXQDA qualitative analysis program (Kuckartz and Radiker, 2019). In addition, opinions of top-level managers regarding their layoff and long-term strategies were taken. These opinions were evaluated separately and not included in the data analysis.

Especially the fact that the incident is very recent causes the businesses to be reluctant to share data. For this reason, besides the wish to research the effects of the event on a specific sample, difficulties related to data collection also prompted the preference of a case study, which constitutes the most important limitation of this research. Besides the time and cost constraints that are usual in many studies, it can be said that there was another limitation caused by the fact that the businesses avoid sharing confidential information and the researchers feel uneasy about collecting data due to health concerns. Therefore, although the study is far from offering generalizations in this state, it could still be considered significant as it is an example that shows the severity of the effects of the epidemic on the hospitality industry. While conducting this research, the ethics committee approval document obtained with the decision number 08 and dated 02.07.2020 of Sakarya University of Applied Sciences Ethics Committee was used.

Findings

The 6-month customer information received from the hospitality business examined in the study included actual numbers and reservations. As the coronavirus appeared in December 2019, statistics of the business were examined for the January-June periods of 2019 and 2020. The results are presented in Table 1. The data were obtained at the beginning of March. For this reason, the numbers for January and February are actual, and those for the other months indicate reservations and early bookings. The data in Table 1 were obtained in part through the support of the authorized front desk personnel of the business.

### Table 1: 6-Month Statistics for the Business

| MONTH | YEAR | Group | Individual | General Statistics (Total) |
|-------|------|-------|------------|----------------------------|
|       |      | Overnight stays | Total Revenue | Overnight stays | Total Revenue | Overnight stays | Room Revenue | Number of Guests | Occupancy Rate (%) |
| January | 2019 | 1,741 | 448,782,01 | 2,272 | 526,364,17 | 4,013 | 1,193,714,45 | 6,900 | 92.47 |
|        | 2020 | 1,452 | 373,710,72 | 2,510 | 795,670,08 | 3,963 | 1,568,445,05 | 6,837 | 70.27% |
| February | 2019 | 1,375 | 204,704,33 | 1,189 | 304,261,59 | 2,577 | 591,721,40 | 4,236 | 46.28 |
|        | 2020 | 1,452 | 242,077,39 | 1,952 | 480,979,57 | 3,724 | 1,144,818,37 | 6,358 | 95 |
| March  | 2019 | 1,542 | 323,237,48 | 2,524 | 644,631,39 | 4,066 | 1,221,628,74 | 7818 | 93.69 |
|        | 2020 | 3,815 | 10,683,72 | 71 | 21,977,94 | 3,886 | 32,661,67 | 7,739 | 65.29 |
| April  | 2019 | 2,035 | 387,080,78 | 1,997 | 414,310,87 | 4,032 | 801,391,65 | 7,436 | 96.00 |
|        | 2020 | 3,430 | 5,402,31 | 27 | 8,076,91 | 3,457 | 13,479,22 | 6,979 | 60.02 |
| May    | 2019 | 1,603 | 312,518,46 | 1,855 | 312,895,24 | 3,461 | 625,683,22 | 6,213 | 79.75 |
|        | 2020 | 2,298 | 0.00 | 43 | 29,811,68 | 2,341 | 29,811,68 | 4,655 | 39.33 |
| June   | 2019 | 1,779 | 322,146,56 | 2,136 | 441,073,19 | 3,916 | 763,219,75 | 7,506 | 93.24 |
|        | 2020 | 1,431 | 0.00 | 12 | 18,728,01 | 1,443 | 18,778,01 | 2,868 | 25.05 |

It could be observed that group accommodations decreased especially in January and February. In the period between March and June, however, numbers of group accommodations increase on a monthly basis except in June. Considering that these numbers do not turn into income, though, it is understood that these statistics show early group reservations. Another important factor that reveals the dangerous side of the situation is the individual overnight stays.
and total room revenues. It is seen that, as of February, when the effects of the epidemic were felt globally, individual sales and reservations decreased significantly for each month after February 2020 compared to the previous year. This decrease is remarkable both in the number of overnight stays and in total room revenues. An analysis of the general statistics reveals that there are serious decreases in the number of guests, overnight stays, room revenues and occupancy rate.

Table 2 shows the actual and estimated statistics for the years 2019-2020. The statistics for 2020 consist of estimates with the best prospects for the whole year, taking into account the 6-month figures provided by the relevant personnel of the business. The number of group overnight stays, which was 21,585 in 2019, is estimated to go down to 17,718 even if everything goes well, which indicates, at best, a drop of about 18%. The major sharp decline is expected in individual overnight stays. A decrease of approximately 80% is estimated for these overnight stays. Likewise, according to the general statistics of 2020, there is a decrease by almost half in the number of customers and occupancy rate compared to 2019. All these drops are reflected in the revenues of the hotel, and the hotel may be in a very difficult situation if this process continues. In fact, it was stated by the hotel managers that layoffs started, and in February 2020, a total of 11 people, mostly kitchen and service personnel, were dismissed.

**Table 2: Actual and estimated data for the business in 2019 and 2020**

| Transaction Type          | Activity       | 2019       | 2020*       |
|---------------------------|----------------|------------|-------------|
| Group                     | Overnight stays| 21,585     | 17,718      |
|                           | Total Revenue  | 6,183,695,56 | 522,791,90 |
| Individual                | Overnight stays| 24,170     | 4,047       |
|                           | Total Revenue  | 6,421,603,35 | 1,012,850,82 |
| General Statistics (Total)| Overnight stays| 45,768     | 21,779      |
|                           | Room Revenue   | 15,668,640,85 | 1,783,333,12 |
|                           | Number of Guests| 83,465     | 41,381      |
|                           | Occupancy Rate (%) | 98.57    | 51.04       |

* 2020 Statistics are estimations based on the figures for the first 6 months.

In addition to the secondary statistical information obtained within the scope of the study, interviews were held with the group's sales representative, sales and marketing director and e-sales manager. The most repeated words in the interviews are presented in the word frequency list in Table 3 and the word cloud in Figure 1. The lower value for frequencies was set as 10.

**Table 3: Frequency of the Most Repeated Words in the Interviews**

| Word      | Frequency (n) | Frequency (%) | Documents (%) |
|-----------|---------------|---------------|---------------|
| Coronavirus| 42            | 12.03         | 100.00        |
| Business  | 38            | 10.89         | 100.00        |
| Market    | 33            | 9.46          | 100.00        |
| Precaution| 31            | 8.88          | 100.00        |
| Disease   | 23            | 6.59          | 100.00        |
| Effect    | 22            | 6.30          | 100.00        |
| Quest     | 22            | 6.30          | 100.00        |
| Hygiene   | 20            | 5.73          | 100.00        |
| Personnel | 17            | 4.87          | 100.00        |
| Labour    | 16            | 4.58          | 100.00        |
| Crisis    | 15            | 4.30          | 100.00        |
| Tourism   | 14            | 4.01          | 100.00        |
Table 3: Frequency of the Most Repeated Words in the Interviews (continuation)

| Research | 13 | 3.72 | 100.00 |
|----------|----|------|--------|
| China    | 12 | 3.44 | 100.00 |
| Probable | 11 | 3.15 | 100.00 |
| Worry    | 10 | 2.87 | 66.67  |
| Plan     | 10 | 2.87 | 100.00 |

In other words, it is seen that the frequency values of the words, which are expected to be repeated at least 10 times, have values within the range of 12.03-2.87. Another striking point in the word cloud is that only one of the participants did not mention the word “worry”. All the other words were mentioned by all three participants. As seen, some of these words are epidemic-related (such as coronavirus, disease, precaution, worry, probable and hygiene) while some others are business-related (such as market, business, personnel, guest and plan).

Figure 1: Word Cloud Obtained from Managerial Opinions

Figure 2 shows the relationship scanners for the coronavirus epidemic and the effects of the epidemic on the business at the center of this study. Its analysis reveals that coronavirus affects businesses mostly in terms of psychology and crisis management. These two elements, in particular, could be treated as the reactions of businesses to crises in the short term. In addition, it can be said that the effects of the epidemic on the business in terms of plan, market and strategy are close to each other. It is also understood from Figure 2 that the themes other than the coronavirus are also interrelated at different levels.

Figure 2: Relationship Scanners for the Effects of the Coronavirus on the Business
Figure 3 presents the effects of the coronavirus on the business analyzed in this research and the relationship of these effects with each other. In Figure 3, the thickness of the lines between concepts shows the strength of the relationship, while transitions between more than two concepts show their mutual relations with each other.

The relationship map in Figure 3 demonstrates that the greatest effects of the coronavirus on the relevant business are psychological. Moreover, it is reflected in the relationship map that the epidemic significantly affected the business in terms of crisis management. There is also a strong relationship between crisis management and psychological effects, which were shown to be strongly related to the coronavirus. In addition, these concepts have more than two relationships. For example, since they contain long-term strategies, the concepts of plan, strategy and market are shown to have low interaction with the coronavirus in the relationship map. Some of the opinions of the participants on this subject are as follows:

- In the short term, we will use our option to revise our prices in line with the changes in the surrounding hotels’ prices. (Strategy)
- First of all, we see that people are nervous. Aside from shaking hands with the guests, we see that even those who work in the same office are afraid of shaking hands with each other. (Psychology)
- Everywhere, from reception to door handles, TV control, air conditioners, elevators, public and common areas, are carefully cleaned. Hygiene is always our most important must-have rule. (Crisis management)
However, it is seen that the coronavirus affects the business in the context of crisis management in the short term, and these impacts on crisis management also affect planning, strategy and market issues. In other words, the coronavirus does not directly affect businesses in issues such as plan, strategy and market change. Nevertheless, the short-term crisis management strategy of the business directs it to seek alternatives in these areas, causing it to react in the long term. The co-working model of the coronavirus effects that arise according to the study findings is as in Figure 4.

Discussion

The results were evaluated specifically on the basis of the case study on which the research was conducted. With its subject specifically related to the coronavirus, this is one of the first studies in the field, which makes it make difficult to compare it with different studies on the coronavirus. The epidemics that emerged in the 2000s had serious repercussions on tourism. The results were evaluated specifically on the basis of the case study on which the research was conducted. With its subject specifically related to the coronavirus, this is one of the first studies in the field, which makes it make difficult to compare it with different studies on the coronavirus. The epidemics that emerged in the 2000s had serious repercussions on tourism. For example, the SARS outbreak caused a contraction in international tourism demand (Pine and McKercher, 2004; uo et al., 2007; McAller et al., 2010). The bird flu outbreak affected the accommodation industry and caused employment losses (Page, 2006). The ebola outbreak in farikada in 2013 caused a major contraction in demand for regional tourism. In the post-2013 period, tourism and accommodation activities in Guinea, Liberia and Sierra Leone were negatively affected (Kongoley, 2015).

Therefore, it is clear that the coronavirus will cause a contraction both in the tourism demand of nations and in the international tourism mobilities in general. The intensity of these effects may vary regionally. Because the course of the outbreak can vary according to regions and time. The effects of the pandemic on the travel sector caused countries to experience economic problems (Wen et al., 2020). In 2020, it is predicted that airline transportation will experience a worldwide workforce loss of 50 million people due to COVID-19 (WTTC, 2020). UNWTO (2020) states that there will be a severe decline in both international tourist arrivals and tourism revenues.
Conclusion and Implications

One of the areas that the coronavirus affects in the tourism industry in the short and medium term is the hospitality industry. There has been a remarkable decline in the occupancy rate, the number of guests arriving and the revenues of the businesses in this context. For example, activities in the hospitality industry in China decreased by about two-thirds for the three days in January 2020 compared to the previous year (Baker, 2020). Employees in other sub-sectors of tourism are placed on unpaid leave (Lucas, 2020). The situation is more severe especially in businesses that host guests from markets in regions where the epidemic occurs or has a high impact. Employees in these businesses are laid off, which affects the employment problems of countries in macro-terms. In the event that the problem is not resolved, businesses may declare bankruptcy or stop their activities in the short or medium term. The negativity experienced in the tourism industry, especially in hospitality, seems to be difficult to eliminate (Benjamin, et al., 2020; Tomassini and Cavagnaro, 2020).

This is a crisis, of course, and managing this crisis is crucial for the short and medium term success of businesses. The psychological dimension of this outbreak comes to the fore, which is reflected in the results of the research. With the influence of written and visual media, both businesses and tourists are under a psychological effect and this psychological process is deepening. In addition, while tourists delay or cancel their travel decisions, businesses are also seeking ways to combat a tough crisis. According to the results of the study, this outbreak causes businesses to focus on crisis management. As a result of this crisis management, companies make long-term plans through strategic decisions, even considering to change markets.

Limitations and Future Studies

This study is in the form of a case study due to research limitations. As a consequence, it is open to multidimensional studies about the existing and probable effects of the epidemic on the tourism industry. It is extremely important for interested researchers to find solutions to the problems in the field of tourism caused by the epidemic by conducting research focusing on different angles as travel and tourism mobilities are no longer a luxury but have become a part of life.

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