An assessment on the news about the tourism industry during the COVID-19 pandemic

Abstract

Purpose – This study examines the relationship of COVID-19 with the tourism industry in the context of news coverage. More specifically, this study analyzes the relationship between COVID-19 and subsectors of tourism throughout different periods of the pandemic.

Design/methodology/approach – Qualitative research techniques were applied, and content analysis used, to analyze the collected data. The news contents obtained cover two one-week periods: March 5–12, 2020, and April 5–12, 2020. The content analysis method and MAXQDA program were used to analyze the data.

Findings – The research findings reveal that tourism and news related to COVID-19 were heavily connected with the travel industry during March 5–12, 2020, with concentrations slightly favoring the hospitality industry. In the period of April 5–12, 2020, the strong relationship between tourism and travel continued. During the latter period, the hospitality and the events industries were both subjects of relevant news.

Research limitations/implications – This study examined the news during a short period of time. In addition, the sample of the study does not represent all news in all media. Examining different media outlets and different news cycles may produce different results.

Originality/value – This is one of the first studies to examine the relationship between the pandemic and the tourism industry from a macro perspective in the context of news coverage. The study provides implications for policy-makers, tourism planners and industry.

Keywords COVID-19, Pandemic, Crisis, Health crisis, Tourism industry

Paper type Research paper

Introduction

Tourism is a dynamic industry and can be immediately affected by any crises that occur in the world (Buhalis and Law, 2008; Del Chiappa and Baggio, 2015). Health crises, especially when they involve epidemic diseases, have the greatest impact on tourism (Chen et al., 2004). Travel movements decrease when epidemic diseases first appear, especially in the short term, and mobility in tourism is negatively affected. Indeed, since the tourism supply is not flexible over the short term, the effects of epidemic diseases on destinations and businesses continue to be felt to significant degrees in the medium or long terms as well. From time to time, epidemic diseases have spread throughout the world and negatively affected the tourism industry at large. Such widespread diseases have been noted from the second half of the 20th century to the present day, while epidemics that occurred before this time have not inspired such a sense of global identity. Due to the developments that followed Second World War, especially those relating to transportation services, opportunities for people to travel increased, and this has paved the way for epidemics to spread and gain global identity. Thus, there is a bilateral interaction between epidemics and travel. While travel movements accelerate the outbreak of global outbreaks, these also affect travel negatively after they have reached global levels.
Such was the case when, in December 2019, a new disease appeared in Wuhan, China. This disease, called COVID-19, is a type of coronavirus and is responsible for one of the biggest outbreaks in recent historical memory in terms of the countries where it has occurred, the number of cases experienced and the number of fatalities associated with its contraction. International travel can be considered an important factor in the spread of this epidemic. The epidemic captured widespread media attention at the beginning of 2020, and the resulting crisis has affected social and economic lives of people the world over. Tourism is one of the industries most affected by COVID-19. News about possible effects the epidemic is having on tourism is being published in national or international news media almost every day.

Therefore, news is one of the most important secondary sources from which to obtain data about the tourism industry during this pandemic period. With the help of content analysis of recently published news, this study is aimed at determining which tourism components and subsectors of the pandemic are directly related to each other. The aim of the study was also to determine whether these relationships changed over different stages of the pandemic. This study is important for predicting what the tourism industry is likely to face in future global health crises. Since the relationship between the events of the health crisis and the tourism industry was investigated by analyzing the content of news coverage, the findings should provide better information for tourism managers, policy-makers and researchers about how and when health crises, such as pandemics, are likely to affect tourism.

**Literature review**

*Health crisis and tourism*

Before COVID-19, severe acute respiratory syndrome (SARS) was perhaps the most impactful epidemic in terms of its effects on tourism movements. This epidemic originated in China, Hong Kong, Singapore and Vietnam in 2002, and it subsequently spread to many parts of the world (McAleer et al., 2010). SARS has affected the tourism industry in the short, medium and long terms. In the medium and long terms, SARS affected tourism movements in Asian countries, especially in Hong Kong, and this effect was most pronounced in hotel businesses (Pine and McKercher, 2004). Ebola has also resulted in reduced tourism. This African-based viral fever was first detected in Guinea, but it has caused declines in tourism movements not only in the countries where it was first identified but also in many other destinations (Mizrachi and Fuchs, 2016). After Ebola became an epidemic, tourism and accommodation industries were negatively affected in many countries, and significant declines were observed in employment, occupancy rates and income levels in these industries (Kongoley, 2015).

Another major outbreak that led to reduced demand for tourism was caused by bird flu, also called avian influenza. This epidemic originated in Hong Kong and China and spread to other Asian countries and different parts of the world, killing large numbers of people (Lee and Chen, 2011). These outbreaks brought about a serious crisis in tourist psychology that resulted in reduced tourism demand. Although these declines were temporary and did not extend to the long term, they have negatively affected businesses operating in the subservice sectors of tourism (Page et al., 2006). Swine flu, which emerged in America in 2009 and affected many countries, spread to numerous other countries in a very short time and became an epidemic due to its ability to be transmitted very quickly and in a very different way from bird flu. As in the cases of the other epidemics, this led to reductions in tourism movements (Haque and Haque, 2018). Other outbreaks considered health crises have negatively affected the tourism industry. Lesser known among them is foot-and-mouth disease. This disease, which occurred in the United Kingdom (Haydon et al., 2004), is an animal-borne disease that is transmitted through contact or contaminated air. This epidemic caused a decrease in tourism activities in the early 2000s (Baxter and Bowen, 2004).
**Novel coronavirus (COVID-19)**

The novel coronavirus is a respiratory disease that was first detected in December 2019 (Backer et al., 2020) and is linked to China’s Hubei province, since the first case was diagnosed in its capital city of Wuhan (Chen et al., 2020; Wang et al., 2020a; York, 2020; Zhao et al., 2020; Zhou et al., 2020). Research has revealed that the virus is associated with the Huanan seafood wholesale market in Wuhan (York, 2020). As a result of this discovery, Wuhan public health officials closed this market (Jiang et al., 2020a) on January 1, 2020. The fact that 55% of the patients before January 1, 2020, and 8.6% of the patients afterward, are related to this market supports this conclusion (Li et al., 2020b). Coronavirus is an RNA-type virus that can be found in humans, other mammals and bird species. It causes respiratory, enteric, hepatic and neurological diseases (Simmons et al., 2004; Zhu et al., 2020b). Different strains of this virus affect human health. Two of them are severe acute respiratory coronavirus (SARS-CoV) and the Middle East respiratory coronavirus (MERS-CoV). These species are zoonic and cause fatal diseases. A third coronavirus, 2019-nCoV, has had an impact on humans in the past two decades (Menachery et al., 2020; Zhu et al., 2020b).

These three types of coronaviruses are related, but the new coronavirus, 2019-nCoV, is different from the others (Munster et al., 2020). It is similar to SARS-CoV that appeared in 2003 and was found in a group of bats like the previous SARS coronavirus (Backer et al., 2020; Chu et al., 2020; Wang et al., 2013; York, 2020; Zhou et al., 2020). In a study by Huang et al. (2020), 22 of 40 patients (55%) had similar symptoms to the acute respiratory syndrome SARS-CoV (Zhao et al., 2020). So far, 2019-nCoV has caused deaths in the form of severe pneumonia, pulmonary edema, acute respiratory distress syndrome (ARDS) and multiple organ failure, which is similar to MERS-CoV. The symptoms of the disease are fever, cough, breathing difficulties and headache. Muscle pain or fatigue has been observed with sputum and some diarrhea. Another important point is the sale of pangolins infected with 2019-nCOV virus in China. These animals are used in both food and traditional Chinese medicine.

On February 11, 2020, the World Health Organization (WHO) renamed the virus COVID-19 (Jiang et al., 2020b). The disease has since spread internationally from China and has become a serious infectious disease (Li et al., 2020a; To et al., 2020; Wang et al., 2020a). In response to the outbreak, many countries, including Thailand, have been subject to screening from Wuhan since January 3 (Okada et al., 2020). At the beginning of January, cases were reported internationally in 24 countries and 5 continents (Wang et al., 2020). As of March 2020, a total of 80,151 cases occurred in China and 10,566 cases in 72 countries around the world (Chinazzi et al., 2020). The World Health Organization reported 2,977 (3.4%) deaths as of early March (Guo et al., 2020). As of the same dates, the virus spread rapidly to different parts of the world. This epidemic, which spread all over the world after China, has seriously affected Italy and Spain in Europe and Iran in the Middle East.

**COVID-19 and tourism industry**

The spread of such infectious viruses is mostly through travel. Tourism accounts for 10.4% of the international GDP (Faus, 2020). It is an important economic industry that makes up 10% of international employment. In this sense, the effects of the possible crises on tourism may cause significant economic and social losses. The general belief in the early days was that this epidemic would not slow the growth of tourism, but this optimism soon reversed (Joppe, 2020). For example, the World Travel and Tourism Council (WTTC) emphasizes that the COVID-19 outbreak will affect direct and indirect employment in the tourism and travel industry, causing a major contraction worldwide (Faus, 2020; WTTC, 2020).

The negative effects of the coronavirus (COVID-19) on the international tourism industry are gradually increasing (TRT World, 2020). The World Tourism Organization (UNWTO) and the World Health Organization (WHO) met in Geneva to strengthen cooperation and
evaluate the possible effects of the virus on tourism (UNWTO, 2020). It is argued that the virus may have serious negative effects on the number of visitors and income in international tourism in the future (Segraves, 2020). The coronavirus has had a substantial impact on the travel industry (Leposa, 2020). In January and February 2020, in the Asia-Pacific region, the International Air Transport Association reported that passenger loss amounted to 13%, resulting in a monetary loss of $27.8 billion (Schonfeld, 2020). Furthermore, the World Travel and Tourism Council stated that the travel industry will be reduced by 25% in 2020 (BBC, 2020). The ongoing pandemic is associated with discernible effects on the tourism industry at the national level. As a case in point, Russian tourism has sustained a loss of $400 million since the emergence of the outbreak. Russian tour operators were forced to contend with significant declines in their reservations. Travel restrictions were imposed in the Mediterranean countries, which are important destinations for Russian tourists (Reuters, 2020a).

Thailand is one of the countries whose tourism industry has been negatively affected by the ongoing pandemic. Although the country is not unfamiliar with economic crises, tsunamis, coups, political instabilities and events that have adversely affected its tourism industry since 1960, it has managed to take a significant share of the tourism market in almost every period of history. In Thailand, which saw 39 million tourists in 2019, more than 10 million of those tourists were Chinese (Specktor, 2020). The importance of tourism in the country is highlighted by the slogan “Teflon Thailand.” However, the decline in Thailand’s tourism industry was intensified when overseas travel to and from China ceased due to COVID-19. It is estimated that the number of tourists will decrease this year, particularly given the increasing rate of flight cancelations every week (Head, 2020). This decrease is estimated to be around 40–50% compared to the previous year (Reuters, 2020b). Thailand, along with Singapore, reported the first cases of COVID-19 after China (Duddu, 2020). Thailand has not imposed a complete ban on Chinese tourists, preferring instead to suspend it for a certain period of time (Campbell, 2020). Problems, similar to those in the USA, have been experienced on the island of Koh Lanta, a well-known tourist destination in Thailand. In the city of Lopburi, the absence of tourists and the subsequent closure of many food outlets caused fighting among the starving monkeys. The monkeys began to disperse after the city residents made food offerings to the temple (Specktor, 2020).

Japan closed Tokyo Disneyland for a long time to reduce the spread of the virus (Omar, 2020). While most restaurants in Japan were usually full of Chinese visitors, these restaurants are now empty due to the pandemic. This is one of the most obvious examples of the interaction between the pandemic and tourism (Leussink and Yamazaki, 2020). As the coronavirus increased in Italy, visitors canceled their vacations (Harlan, 2020). Approximately 90% of hotel and travel agency reservations have been canceled in Rome, and it is estimated that the cancelation rate will reach 100%, depending on the reservation date (Aljazeera, 2020). Everywhere in Rome, from pavements to cafes, is deserted. In Milan’s Piazza del Duomo, which usually attracts more than five million visitors every year, there are now almost no tourists (Omar, 2020). Italy has seen tens of thousands of cases and thousands of deaths due to coronavirus (Nadeau, 2020). In Spain, the tourism industry experienced a great decrease over Easter due to the coronavirus. About 84 million tourists visited Spain last year. Tourism constitutes 11% of Spain’s GDP and is the third-largest revenue sector in the country. Many reservations have already been canceled, and tourism decreased by 20–30% in February compared to 2019 (Burgen, 2020). Elsewhere in the world, the Louvre and Disneyland attractions in France have been closed to visitors. In addition, Broadway has closed its doors, one of many attractions affected by this pandemic, with closures so rarely seen in the past (Leasca, 2020). The US tourism and travel industry has had one of the lowest years in foreign revenue, losing $24 billion (Hirsch, 2020). The USA has closed all theme parks and followed policies to
cancel or postpone many group activities to prevent the spread of the virus (Lastoe, 2020). In Turkey, which welcomed more than 45 million tourists in 2019, tourism has been adversely affected by this pandemic as a result of numerous restrictions and cancelations. According to the Ministry of Culture and Tourism, it is estimated that the country, which had the best January with 1.8 million tourists in 2020, will experience decreases in the coming months owing to outbreak cases (Daily Sabah, 2020). In Australia, if the authorities continue to limit the number of tourists due to the pandemic, there may be redundancies within the hotel sector. Cairns, Queensland, one of Australia’s tourism centers, is at particular risk (Smee, 2020). Australia activated its “outbreak plan” for the coronavirus on February 27, 2020, since which time border restrictions have been imposed on people traveling from China, Iran, Korea and Italy (Australia, 2020).

This pandemic affects tourism at both the national and regional levels. In this respect, it is estimated that Asian tourism will be the region most affected by the outbreak (Faus, 2020). In the Middle East, more than 7,600 COVID-19 cases have been detected, and Iran has been affected the most by the virus in the region. Saudi Arabia has closed its doors to many countries. While the Grand Mosque in Mecca, the holy city of Islam, welcomes nearly 4 million visitors every year, these visits have been suspended due to the virus (Omar, 2020). European tourism has also been highly affected by the coronavirus, resulting in a financial loss of around 1 billion euros per month (Reuters, 2020a). Even if the pandemic ends, it is anticipated that the tourism industry will need more than 10 months to recover (Faus, 2020).

As COVID-19 becomes increasingly common in 2020, studies regarding its impact on the tourism industry have begun to increase. These studies have focused on different issues related to the tourism industry that are largely supply- and demand-oriented. A study by Gössling et al. (2020) highlights the travel restrictions experienced in international travel movements due to COVID-19 and considers the restrictions as affecting short maturities that last until late March. The pandemic negatively affects international travel in the short term. Chang et al. (2020) state that COVID-19, which affects the world in every conceivable way, impacts tourism and has a dynamic structure against crises with regard to international travel, tourism demand and the hospitality industry. Qiu et al. (2020) emphasize that the pandemic will level some social costs against tourism. Local governments and tourism organizations should act jointly during post-pandemic recovery in order to eliminate these social questions. Besides the effects of the spread of COVID-19 on the tourism industry, international tourism movements have been instrumental in the spread of COVID-19. In their study, Farzanegan et al. (2020) found a positive correlation between international tourism movements and COVID-19 cases or death numbers.

In addition to research addressing the negative effects of COVID-19 on tourism, there are studies that see the pandemic as an opportunity to address the crises in the tourism industry and to reconstruct the industry accordingly (Higgins-Desbiolles, 2020; Niewiadomski, 2020). Brouder (2020) stresses that this reconstruction can be in terms of both supply and demand. Toward finding a solution, Carr (2020) stresses that issues such as social and environmental welfare should be prioritized and that social needs in the tourism industry should be taken into consideration. Wen et al. (2020) make similar assessments in their study. The pandemic ensured that the protection of cultural values in the tourism plans and policies of governments, tourism providers, tourists and local people need to construct a fairer and positive future. Gretzel et al. (2020) emphasize that e-tourism can be brought to the fore in the reconstructing of tourism after the pandemic. COVID-19 can offer some important opportunities, especially for solving problems such as carrying capacity, sustainability and over-tourism.
Methodology

The aim of this study is to investigate the relationship of COVID-19 and the tourism industry and how this relationship may change over time. The fact that the pandemic affects many areas of social and economic life has escalated the amount of news about its effects in different parts of the world. Information about possible effects of the COVID-19 pandemic in any area of the world can be accessed on almost any online news site. Tourism is one of the key areas of focus for information regarding the effects of the pandemic. By analyzing this data, the potential effects of this pandemic on tourism in the short, medium and long terms were addressed with regard to the subsectors of the tourism industry, and assessments were made with the time phenomenon. In this context, the study was based on the following two questions:

RQ1. According to the news, are there relationships between the tourism industry and the coronavirus?

RQ2. According to the news, how do these relationships change according to different time periods?

Studies on this global pandemic, which affects life in a multidimensional manner, are important to reveal the extent of the pandemic. China, where the pandemic first occurred, and Italy, Iran, France, Spain and the USA, where the pandemic has caused the greatest damage, are very important destinations for tourism supply and demand in terms of population, economic development and leisure and tourist resources. Therefore, as the COVID-19 pandemic is believed to negatively affect the tourism industry, these and similar studies analyzing the possible effects of this pandemic on the tourism industry are considered important. Because this topic is current and is new to research, a methodical approach is required. Although research in situ would effectively evaluate the impact of the pandemic on the tourism industry, COVID-19 is a major health crisis that could also affect researchers. Due to the crisis, it is not possible to access data from primary sources. Therefore, secondary data sources constitute the most important source of information for researchers. Complex secondary data sources should be processed systematically, as examining their content will reveal significant and reliable data. For this reason, it would be beneficial to transfer these data, which include a large amount of text, to a reliable analysis system.

Qualitative research techniques were used in the research, and content analysis was used as the analytical method. Content analysis is a method in which texts with high word counts are organized into categories created around certain criteria. It is a method based on making interpretations and inferences, with the aim of identifying important aspects of the content. The main benefit of this type of analysis is that it allows the systematic simplification of large-scale data. Content analysis needs to be addressed by six basic questions (Krippendorff, 2004; Stemler, 2000). These questions and their responses in this study are given in Table 1.

The news contents were obtained cover two week-long periods between March 5–12, 2020 and April 5–12, 2020. This timeframe, during which travel restrictions are intensified, has been deliberately chosen. Thus, the short-term effects of this epidemic on tourism were examined in the context of subsectors by considering the dynamic structure and flexibility of tourism on the whole. The fact that time is an important factor in the reactions of both tourism supply and demand to crises played an active role in the present analysis. The data obtained online were analyzed using the MAXQDA qualitative analysis program. Before the analysis, tourism and the coronavirus were identified as the main theme. Subsequent analyses added hospitality, events, travel and food and beverage subsectors to the theme. The concepts within each theme were coded into the MAXQDA program and assessments made accordingly (Kuckartz and Radiker, 2019). Subcodes searched within the scope of themes, along with the themes themselves, are reported in Table 2.
March and April were specifically chosen to collect data within the scope of this study. Researchers have been closely interested in the possible implications of this outbreak in the tourism industry since the virus first appeared in Wuhan, China. However, in order to determine its effects on the relationship between tourism and the coronavirus, a few conditions should be expected to mature. First of all, a pandemic must be seen in countries on different continents in order to affect tourism worldwide. Otherwise, these effects tend to be regional. In late February and early March, the virus began to appear more or less in almost every continent and in most countries of the world. Countries quarantined themselves by introducing flight and border bans. Following this development, news about the possible effects of COVID-19 on tourism from news sites was obtained every 24 h between March 5–12 and April 5–12, 2020. As a matter of fact, the coronavirus was declared a pandemic by the WHO at the time data were collected. This development is an important indicator that the time interval of data obtained is well planned. Analysis results of the news obtained were reported in the findings in accordance with the research questions.

**Findings**

The study created a database by examining 348 news articles about tourism, its subsectors and the coronavirus. To provide a holistic perspective in the study, a relationship map was created showing the connections between relevant categories through a qualitative data analysis program. In this framework, the directions of the line signs on the map were evaluated and their relationships and causes interpreted. Again, the findings of each category were graphed and interpreted with the help of the analysis program. MAXQDA maps are

### Table 1. Framework of the study

<table>
<thead>
<tr>
<th>Expectation from content analysis</th>
<th>This study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What data will be analyzed?</strong></td>
<td>Weekly news contents between March 5–12 and April 5–12, 2020</td>
</tr>
<tr>
<td><strong>How are the data defined?</strong></td>
<td>News published on news sites in the span of a week (March 5–12, 2020 and April 5–12, 2020)</td>
</tr>
<tr>
<td><strong>What is the group where the data are collected?</strong></td>
<td>All news (183 articles in March, 165 articles in April) about tourism and COVID-19</td>
</tr>
<tr>
<td><strong>What is the context in which to analyze the data?</strong></td>
<td>Determine the relationships between identified themes (coronavirus, tourism industry and subsectors of industry)</td>
</tr>
<tr>
<td><strong>What are the limits of analysis?</strong></td>
<td>Conceptual map (code map), code matrix browser, code co-occurrence model, word cloud analysis</td>
</tr>
<tr>
<td><strong>What is the goal of the results?</strong></td>
<td>The relationship of COVID-19 with the tourism industry in the context of news coverage. Change of these relationships depending on the time phenomenon</td>
</tr>
</tbody>
</table>

### Table 2. Themes and codes used in content analysis

<table>
<thead>
<tr>
<th>Themes</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism</td>
<td>Tourism industry, tourist</td>
</tr>
<tr>
<td>Coronavirus</td>
<td>COVID-19, 2019-nCoV</td>
</tr>
<tr>
<td>Travel</td>
<td>Flight, airline, airways, agency, tour, aviation, airport, bus, train, cruise, ship</td>
</tr>
<tr>
<td>Hospitality</td>
<td>Accommodation, hotel</td>
</tr>
<tr>
<td>Food and beverage</td>
<td>Food-beverage, gastronomy, restaurant, cuisine</td>
</tr>
<tr>
<td>Event</td>
<td>Sport, congress, meeting, symposium, concerts, conference, league, tournament, EuroCup, stadium, Olympic</td>
</tr>
</tbody>
</table>

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used to clarify ideas and understand hypothetical relationships between categories and features (Azzopardi and Nash, 2016).

Words in the news with a frequency of over 50 have been included in the word cloud in Figure 1. This figure provides us with information about the tourism issues that have most frequently been discussed in the media during this time of the global health crisis. Sixty-three words appearing in news content in March 5–12, 2020, and 38 words appearing in news content in April 5–12, 2020, have been included in the word cloud. The sizes of the words in the word cloud are based on the word’s frequency in the news. In the news of both periods, as reflected in Figure 1, words such as tourism, travel and tourist were most frequently mentioned. There is a clear difference between the two periods in the word cloud: China is a very frequently used word in the March period, while the frequency of reports on China in the news had decreased by April due to the spread of the pandemic across the world.

Figure 2 is based on the use of code mapping techniques to investigate potential relationships between the various elements. Although this technique shows the visual links, but not their directions, it gives us an idea about the relative size of the codes. Figure 2 displays the supply and demand relations of news related to the tourism industry in the international media after the COVID-19 pandemic began. Tourism-related news was strongly associated with the travel industry in the March 5–12, 2020 period. The news also appears to be slightly concentrated on the hospitality industry, as related to travel. It is not unusual for news related to travel to be dominant, because the demand for travel has an elastic structure in the short term. If a perceived risk is present, tourists take note of the situation and quickly change their travel attitudes and decisions (Rosselló et al., 2017). The fact that subsectors of tourism other than travel are related to tourism supply in Figure 2 is the biggest reason why
the relations are not very strong. Since tourism supply is inelastic, it reacts to crises in the long term.

The effects of epidemic diseases on the tourism industry begin during the epidemic period and continue until a certain period after the epidemic. Examining the effect of diseases on travel motivation necessitates looking at epidemics that have had a major media impact in recent years, such as avian flu and SARS (Pongcharoensuk et al., 2012). This is why the same date range was examined for March and April 2020. In the news for April 5–12, 2020, the strong relationship between tourism and travel carried over from the March period of data collection. Although their connection was not very strong, as shown in Figure 2, the hospitality industry and the events industry were also frequently mentioned in related news. Hospitality news in March is associated with travel news, while in April it is associated with tourism news. Events industry news is related to both tourism and travel news. The density of hospitality news is higher than that of events news.

The coronavirus appears to have affected the travel industry first. Many flights were canceled, borders were closed and curfews were introduced. In this case, traveling was difficult at the national level, but impossible internationally. This produces outputs at both micro- and macroeconomic levels. It has been stated that 50 million jobs in the travel and tourism industry are at risk due to the pandemic (WTTC, 2020). The COVID-19 outbreak poses a significant threat to the industry as a whole: to those who work in it and to those who wish to continue to travel. The WTTC (2020) announced that global travel could be affected by up to 25% in 2020. In a world where travel is not possible, all planned holidays and conferences, sports and cultural events were either canceled or postponed due to coronavirus (Garcia et al., 2020).

If a general framework is to be drawn from our findings, it is clear that the coronavirus impacts the travel, tourism, hospitality, events and food and beverage sectors. There are huge impacts in the short term, especially at the point of travel. This negative impact on the point of travel is thought to be reflected in other components of the tourism industry over time. Figure 3 shows MAXQDA’s Code Matrix Browser. Here, the documents and codes are displayed as a table. Six codes are displayed on both the x-axis and the y-axis.

The size of the number in the matrix shows how often the codes are used in the document being examined. The codes’ relationships can be accessed by clicking on any of the symbols. The visual tables in Figure 3 provide a good general framework and allow for comparison and interpretation of the relationships. In the March 5–12, 2020 period, tourism and travel were mentioned together 225 times. In the news, the most frequently mentioned issues after tourism and travel were tourism and events (44 times). During this period, there was also commonly news about all other subsectors related to tourism. However, as can be seen from the code maps in Figure 2, these relations are not very strong. In the news for the April 2020

<table>
<thead>
<tr>
<th>Codesystem</th>
<th>Food &amp; Beverage</th>
<th>Travel</th>
<th>Event</th>
<th>Hospitality</th>
<th>Tourism</th>
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<tr>
<td>Tourism</td>
<td>12</td>
<td>115</td>
<td>28</td>
<td>39</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.
Code matrix browser (CMB)
period, the most frequently mentioned concepts are tourism and travel. There was a reduction of more than 100 common news mentions about these two concepts between the March and April data collection periods. Similarly, the concepts of tourism-hospitality (39), travel-events (35) and tourism-events (28) were used together in the news. Both the emergence of these relationships and the reduction of travel-tourism interaction are very important. Because, as stated in the research, it has been determined once again that the effects of crises on the supply and demand of tourism are time-sensitive due to the flexibility of these concepts (Schiff and Becken, 2011; Shi et al., 2016).

The model in Figure 4 shows the relationships and connections between specific codes for two periods. All codes that intersect with some of the selected codes are connected by an arrow. This model, created using one or more codes, is actually a summary of the research. The code co-occurrence model gives the relationship between tourism and its subsectors in news related to post-epidemic tourism in the period March 5–12, 2020 and April 5–12, 2020. According to the model, there was a strong relationship between tourism and travel in the weekly news in March, while the relationship was not found between hospitality and events. A low level of relationship between other sectors has been reported. In the weekly news in April, changes in the form and size of the relations occurred. Relations between the entire industry and sectors have been identified. Among them, the strongest relationship is between tourism and travel. The strongest relationships were found to exist between tourism-event, travel-event and tourism-hospitality.

Discussion and conclusions
Theoretical implications
This research provides an overview of the crises and discusses how they compare with previous crises. COVID-19 gives stunning lessons to policy-makers, the tourism industry and tourism researchers about the effects of global change. In this research, the relationship of the COVID-19 pandemic and the tourism industry at a global level is shown. The purpose of this paper is to investigate the relationship of COVID-19 with the tourism industry in the context of news coverage. More specifically, the aim of this study is to reveal changes in the relationship between COVID-19 and subsectors of tourism in different time periods of the pandemic. To identify these relationships, each of the subsectors related to tourism was chosen as a theme. The study findings imply that the most affected sector will be the travel sector due to its flexibility in the short term (Song et al., 2010; Schiff and Becken, 2011). Since the supply of tourism is inelastic in the short term, it is suggested that other sectors will be affected in the long term (Shi et al., 2016). According to the results of the study, the COVID-19 epidemic has seriously affected the tourism industry. The effects of such epidemics on

![Figure 4. Code co-occurrence model](image-url)
Tourism have been experienced in the past (Page et al., 2006). Since the demand for tourism is flexible, the first reflection of such a crisis in the tourism industry is felt in the travel industry. This situation is very clearly reflected in the results of the research. The research data in the second period show that the pandemic’s relations with the tourism industry have spread beyond the travel industry to different sectors.

The study findings reveal that COVID-19 is also associated with the hospitality and event industries. It reveals once again that tourism supply and demand elasticities are shaped by time in crisis situations (Blake and Sinclair, 2003; Sanchez-Rivero and Pulido-Fernandez, 2020; Sigala, 2015). Until the time when the effects of COVID-19 decrease, the pandemic will continue to affect different business lines related to tourism. In addition, even if there is a medical solution, the effects of the pandemic on tourism may continue due to its social and psychological effects. The fact that many countries impose flight bans in order not to spread the epidemic can be stated as the most important reason for this (Baxter and Bowen, 2004; Haque and Haque, 2018). Practices such as strict government regulations and restricting unnecessary travel are a source of demand decline in the travel industry. Closing the borders in a global sense is the biggest factor in itself.

**Practical implications**

Because tourism supply is inelastic in the short term, the COVID-19 outbreak has had a long-term effect on hospitality services like accommodation, food and beverage and other complementary supply sources. In fact, even if these effects are felt immediately, it may take time for them to be reflected in official statistics. This study revealed that the relationship of COVID-19 to accommodation, food and beverage and events was weak in the short term. Assuming that the pandemic will continue, it can be said that the problems the accommodation and food services sector face may reach new proportions with long-term consequences (Pine and McKercher, 2004). With the continuation of the pandemic, it is seen that the problems in the accommodation sector are increasing. Occupancy rates dropped by 90% in China and the United States (Usnews, 2020). Overall, the hotel enterprises have great problems in both demand and costs, such as personnel expenses. It can be said that tourism-dependent countries will continue to have problems in many macroeconomic indicators, especially income and employment (Kongoley, 2015).

Many countries will consider using hospital capacity efficiently while trying to deal with COVID-19 cases. This means that all kinds of events – conferences, weddings, concerts and so forth – will be restricted for a longer period of time. The postponement of major events (e.g. UEFA Euro 2020, 2020 Summer Olympics) entails great economic losses for their host countries (Gössling et al., 2020). Although the multiplier effect has not been determined yet, it is estimated to be a loss of billions of US dollar. Therefore, it is predicted that event tourism will be negatively affected by this pandemic crisis.

**Limitations and future studies**

This research addresses the relationship of the COVID-19 outbreak and tourism during different periods. For this reason, the effects of this pandemic on the tourism industry have been examined while taking into account the different time periods. Despite the fact that COVID-19 has had important and observable effects on tourism, examining the news in a short time is the most important limitation of the study. In addition, the news sample examined in this study is not representative of all news in the media. Examining different media outlets and the varied news coverage may produce different results. This is a mandatory step in finding answers to the research questions. For this reason, it may be useful to obtain wider and big data and to investigate the long-term effects of the pandemic. In addition, the possible effects of this pandemic, which raises provocative questions about
globalization, on the tourism industry should be examined in a broader context. For example, issues such as the effects of the pandemic on national tourism policies, how tourism businesses shape crisis management and strategies or how the pandemic can impact tourist psychology, should be studied. While research is important, research alone is not enough for restoration of normal tourism movements. COVID-19-based studies should help redesign the industry while being people-oriented and sustainability-centered.

References


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