Chapter 13
COVID-19 and the Stock Market: Impacts on Tourism-Related Companies

Abstract The unprecedented outbreak of the coronavirus in 2020 provided an illustration of a neglected risk that brought about an economic disaster for the world. The COVID-19 pandemic, which started as a public health emergency, rapidly transformed into an economic crisis the world had not witnessed in over a century. In particular, the COVID-19 pandemic was a source of systematic risk, which filled global stock markets with uncertainty and resulted in big moves of share prices. Using the event study methodology that significantly utilised secondary data collection and analysis, the chapter examined the impacts of COVID-19 on tourism-related stocks. Vicissitudes in stock value were used as a signature mark for the impacts. It was observed that the news of the COVID-19 outbreak and measures put in place to curb its spread dampened the stock markets and led to declines in tourism-related stock prices. The measures included travel bans, bans on mass gatherings, as well as the closure of hotels and restaurants. Tourism firms and those in their value chain became the worst performers on global stock markets with some losing up to 80% of their value within a 2-week period. This translated into billions of dollars in lost value. Governments responded to these losses by issuing stimulus and rescue packages for distressed industries. These led to notable recoveries by some firms, although most in the tourism industry remained negative. The chapter recommends an additional rescue package for the tourism industry that must be timed with visible signs that the pandemic is under control.

Keywords Tourism-related · Share price · COVID-19 · Stock markets · Volatility

13.1 Introduction

When the World Health Organization (WHO) declared COVID-19 a pandemic on 11 March 2020, it warned that the disease would potentially have devastating impacts on the various markets of the world (Ramelli and Wagner 2020). COVID-19, which emerged in Wuhan, China, as a mystery illness, quickly spiralled into a global public health and economic crisis the world had not witnessed in over a century (Hassan et al. 2020). Yan (2020) argue that when a new virus outbreak occurs, no one can fully know what its long-term impact on the economy will be, as available
models will have limitations in their predictive power. However, Ru et al. (2020) observe that the foremost factor when a pandemic occurs is not necessarily how bad the pandemic will be but how bad the market and investors perceive it to be. If investors perceive that a pandemic would disturb the value chain of certain firms, then the stock value of exposed firms would fall (Hassan et al. 2020).

Several existing works have explored the relationships between the outbreak of infectious disease and its impact on the economies of the affected countries, especially the stock markets. De Lisle (2003) quantifies the cost of the 2003 severe acute respiratory syndrome (SARS) outbreak at an estimated $3 trillion in lost gross domestic product (GDP) and $2 trillion in fallen equity in the financial markets. The research concludes that SARS had a far bigger economic shock than expected compared to its health impact. Velde (2020) highlights the negative stock market impact of the Spanish flu as being between modest to a non-event over a time span of several months. This was because information availability on the disease and its diffusion were very much constrained, and interconnections between different international economies were limited during that period. Honigsbaum (2013) observes that the first wave of the Spanish flu occurred during the First World War when news about the true extent of the outbreak was censored. Hence, it caused little panic among investors. Others such as Chev and Marinč (2018) note a significant negative reaction of stock markets to outbreak alerts and unanticipated increases in predicted infections. They also note close interrelations between stock markets in different countries, especially during times of crises. Hsieh (2013) observes that stock prices were more volatile in the trading days during crisis periods such as disease outbreaks, wars and economic crises than those during noncrisis periods.

During the COVID-19 outbreak, governments around the world responded to this biosecurity threat with a series of decisive and sweeping actions. These included travel bans, bans on mass gatherings, closure of hotels and restaurants and banning of travellers from particular countries exposed to the disease as ways to slow down the spread of the virus (Ivanov et al. 2020; Dube et al. 2020). Further, the measures imposed compulsory quarantining of people who had visited particular countries or those showing COVID-19 symptoms, partial or complete lockdowns and curfews (Hanson 2020). Ivanov et al. (2020) highlight that these government actions disturbed the normal business process and heightened the economic uncertainty caused by the pandemic. Many firms ceased operations during this period as a result of direct government orders to close, falling demand due to travel bans, voluntary precautionary measures to protect the health of employees or forced decision from disruptions in the supply chain (Pandey 2020). As a consequence, millions of employees were sent home on paid or unpaid leave or were laid off, while companies struggled to stay liquid and pay their debts (Dube et al. 2020).

Stock market returns have been noted to respond to major events such as environmental disasters, pandemics and political turbulence. Changes in share prices on stock markets allow interested and affected stakeholders to objectively decipher how different industries are impacted by pandemics such as COVID-19. Griffith et al. (2020) maintain that the changes in share prices are a reflection on market expectations about possible impacts. Such expectations and impacts
include a change in demand or restrictions in the supply chain. To this end, the
COVID-19 pandemic induced systematic risk, which filled global stock markets
with shock and uncertainty, giving rise to big moves in stock prices (Schoenfeld
2020). This chapter examines the spillover effects of the COVID-19 pandemic on
the tourism sector using changes in stock value of tourism-related firms as a sig-
nature mark for the impacts.

13.2 Literature Survey

The outbreak of the novel coronavirus will go down in history as a foremost illustra-
tion of a neglected risk. This can be noted in the World Economic Forum’s (WEF)
Global Risks Report 2020 released in January 2020, which ranked the theme “infec-
tious diseases” tenth in terms of possible impact to the business, although it was
considered relatively unlikely to occur (WEF 2020). The attention of global corpo-
rate decision-makers, politicians and influencers was mainly focused on traditional
sources of business risk and persistent environmental concerns such as climate
change (Ramelli and Wagner 2020). This suggests that global business managers
systematically underestimated their exposure to pandemics (Schoenfeld 2020). The
emergence and rapid spread of COVID-19 meant that the risk management models
of many businesses were facing a risk that they were not prepared and had a signifi-
cant blind spot for.

The tourism industry is generally very vulnerable to perceptions of risk on the
part of both consumers and investors. As such, understanding how the industry
responds to and rebounds from the crisis is important for its long-term management
and sustainability (Morris 2020). The next parts of this section examine how previ-
ous pandemics impacted on stock markets with a special emphasis on the tourism-
related stocks.

While the COVID-19 pandemic provides an extreme example of how disease
outbreaks can impact the stock markets, it is not without precedent (Fernandes
2020). Much can be learnt about the behaviour and resilience of the stock markets
from previous outbreaks and other catastrophic events. However, given the extraor-
dinary nature of COVID-19, earlier experiences need to be carefully adjusted to the
unique features of the current challenge because existing policy remedies and mod-
els that applied then may no longer be applicable (Barro et al. 2020).

Although there are still lessons to be learnt, Hassan et al. (2020) observe that
there are more differences than similarities between the COVID-19 pandemic and
the outbreak of SARS in 2003. While an industry might learn from prior experi-
ences, ultimately, the SARS and H1N1 epidemics were much smaller in magnitude
and had less severe macroeconomic consequences than the COVID-19 outbreak.
Morris (2020) states that stock markets that did not have prior exposure to SARS
were less volatile at the outset of the COVID-19 pandemic and were less associated
with negative sentiment related to the virus compared to markets that had been
exposed before. While SARS broke out in November 2002, it did not begin to
affect markets until March 2003. The Hong Kong stock markets started to underperform noticeably after the WHO issued a global alert about SARS in China and other parts of Asia (Yan 2020).

The stock market reaction to the SARS outbreak was relatively moderate in Hong Kong and other Asian stock exchanges. According to Siu and Wong (2004), the Hong Kong Hang Seng Index dropped only by an average of 1.78% between 12 March and 30 April 2003. Other major market indices in the region rose over the same period, except for the Taiwan Weighted Index that dropped 7.57% and Japan’s Nikkei that dropped 1.68%. Nippani and Washer (2004) examine the impacts of SARS on the stock markets of affected countries such as Canada, China, Hong Kong, Indonesia, the Philippines, Singapore, Thailand and Vietnam. They compared the mean returns for the indices during the SARS-affected period with the pre-event period. They noted that the stock markets were already underperforming before the SARS outbreak. However, they also observed that none of these indices significantly underperformed during the comparison period, implying that the SARS outbreak did not have a severe impact on any of the studied stock indices.

By the time the SARS outbreak was declared successfully contained, stock markets in Hong Kong had remained subdued and still underperformed. The most important factor, which rallied the stock market performance, was the Hong Kong government’s announcement of a US$ 1.5 billion relief package to boost the domestic economy (Hassan et al. 2020). The local stock market subsequently recovered and outperformed global equities over the next several weeks (Morris 2020). At the peak of the SARS outbreak, however, share prices for the most exposed industries such as hotels and restaurants fell even deeper than the Hang Seng average (Fernandes 2020). The stock indices that performed the worst were not surprisingly those in the tourism value chain such as the Cathay Pacific Airways, which dropped by almost 15%. Globally, airline stocks also fell sharply during SARS, with the US airline stock prices dropping more than 30% (Yan 2020). However, these stocks recovered strongly once the broader market rebound began, with three out of the five worst-performing sectors moving to the top five of the best (Ru et al. 2020). These were the airlines, hotel, restaurant and leisure industries, and their recovery was fast enough not to dent the long-term profitability of the companies concerned (Morris 2020). As noted by Ramelli and Wagner (2020), during SARS, stock markets fluctuated less and even had persistent negative abnormal stock returns. The timing of the Hong Kong stimulus package to boost the markets in 2003 was also key. This came as the total number of new cases was levelling off and beginning to decline (Morris 2020).

Taiwan was also one of the territories seriously affected by SARS. This was because it was a transit country through which more than 70,000 air traffic passengers passed each day, with most of them coming from SARS-infected areas (Economist 2003). In addition to the loss of lives, the SARS outbreak had severe economic ramifications for the territory, especially the tourism industry. Thousands of business meetings and holidays were cancelled with the outbreak
having almost an immediate and devastating impact on Taiwan’s hotel industry (Pine and McKercher 2004). Chen et al. (2007) highlight that during the SARS outbreak, share prices of tourism-related companies dropped by as much as 28.91%. This was the heaviest drop compared to other industries such as textiles, which dropped by 14.97%, automobiles that dropped by 13.85% and construction that had a drop of 12% (Chen et al. 2007). Seven publicly traded hotel companies had significant declines in their earnings and stock prices during the SARS period. This showed that hotel stocks in Taiwan were on average exposed to above average market risk. This was consistent with the common perception that the hotel industry is most vulnerable to decreases in the number of tourists visiting an area (Vigna 2020).

Loh (2006) studied the impact of the SARS outbreak on the returns and volatility of individual airline stocks. This was after several authors observed SARS to have imposed detrimental impacts on the airline stocks listed on the stock markets of various SARS-affected nations (Harbison 2003). Loh (2006) uses data on 12 airline stocks including Air Canada (Canada), Westjet (Canada), Eastern Airlines (China), Hainan Airlines (China), Shandong Airlines (China), Shanghai Airlines (China), Cathay Pacific (Hong Kong), Singapore Airlines (Singapore), China Airlines (Taiwan), Eva Airways (Taiwan), Far Eastern Air Transport (Taiwan) and Thai Airways (Thailand). The research concludes that share prices for most airlines were lower during the SARS outbreak relative to the pre-event period. This meant that airline stocks experienced equity devaluations with the onset of SARS and investors holding these shares from the pre-event period to the SARS period were likely to realise negative returns. In terms of examining the impact of SARS on the volatility of individual airline stocks, the results indicate that the volatility of returns was significantly higher during the SARS outbreak when compared to the pre-event period for six of the 12 airline stocks that were examined. Overall, Loh (2006) concludes that negative implications of SARS on the stock markets as a whole were negligible, although its effects on airline stocks are more pronounced.

Chiang et al. (2007) argue that stock markets in a region and in the world become interlinked and interdependent, especially during crisis periods. They discovered close cross-market correlations after examining the daily stock returns for nine Asian markets for the period from 1996 to 2003. They noted a high correlation among Asian stock markets during periods of crises, with Malaysia, Vietnam and Thailand being the most financially integrated with China. This implies that a crisis in one country can easily spread to another, and events such as infectious disease outbreaks can induce negative changes in investor perceptions that can strongly affect their investment decisions and stock markets by default (Liu et al. 2020). Gates (2020) observes that in any crisis, leaders have two equally important responsibilities of solving the immediate problem and keeping it from happening again. The next section highlights the material and methods used in the collection and analysis of data. It also shows countries with the largest stock markets in the world.
13.3 Material and Methods

There are over 60 major stock exchanges around the world with different market capitalisations and monthly trading volumes. The total value of these stock markets is well in excess of $70 trillion (World Federation of Exchanges 2020). Geographically, there is a domination of the Northern Hemisphere, with North America holding 40.6% of the global stock market value (The Robust Trader 2020). These stock markets include the New York Stock Exchange, the National Association of Securities Dealers Automated Quotations (NASDAQ) and TMX Group, which operates the Toronto Stock Exchange. In Asia, which has 33.3% of the global stock value, there is the Japan Exchange Group, Shanghai Stock Exchange, Hong Kong Stock Exchange, Shenzhen Stock Exchange, Bombay Stock Exchange, National Stock Exchange of India, the Korea Exchange and the Taiwan Stock Exchange (World Federation of Exchanges 2020). Europe, which has 19.5% of global stock market value, has the Euronext, London Stock Exchange, the Deutsche Borse, SIX Swiss Exchange, the NASDAQ OMX Nordic Exchanges and the Bolsas y Mercados Españoles (The Robust Trader 2020). Notable stock exchanges in the Southern Hemisphere include the Johannesburg Stock Exchange, Australian Securities Exchange, the Indonesia Stock Exchange and the Brazilian BM&F Bovespa. These hold a total stock value of 6.6% (World Federation of Exchanges, 2020). Figure 13.1 shows countries with the world’s top 25 stock exchanges by market capitalisation.

The chapter mainly used event study methodology, dominated by secondary data generation and analysis methods. The event study methodology has its origins in finance, particularly the analysis of stocks and foreign exchange (Hayward 2018). An event study examines the impact of an event on the financial performance of a company or stock markets. In the case of this chapter, the event study was used to examine how tourism-related share prices responded to the different stages in the outbreak of COVID-19.

The research also used relevant quantitative and qualitative secondary data from authoritative sources in order to answer the objective of the chapter, which was to

Fig. 13.1 Location of top 25 stock exchanges by market capitalisation. (Source: Authors)
document the impacts of the COVID-19 pandemic on share prices of tourism-related firms. Secondary data used in the study were derived from governmental sources, regulatory bodies, industry representative bodies, private companies and other scholarly sources addressing the research questions. Thematic content analysis was then used to thematise obtained data sets before the final analysis to derive meaning from the content was performed. Descriptive statistics, especially frequencies, were used to summarise the derived quantitative data, with the presentation being in the form of graphs. Qualitative data were analysed through thematic content analysis and presented through the use of descriptions.

13.4 Presentation of Data and Discussion of Findings

This section presents data and discusses the findings from twin perspectives: firstly, a general overview of the stock market response to COVID-19 and secondly, specific impacts of the COVID-19 on tourism-related stocks. Each of these twin subsections will now be considered as appropriate.

13.4.1 COVID-19 Impacts on the Stock Markets: An Overview

Globally, the uncertainty that characterised the period of the COVID-19 pandemic led to an unprecedented drop in stock market indices. As the pandemic rapidly spread across the world, wave after wave of bad news led to global drops in stock prices. China, the world second largest economy, for example, was hit by two waves of significant stock price declines. Firstly, stock prices dropped dramatically when the lockdown of Wuhan was announced but recovered when the virus was curbed in the country (Ozili 2020). Secondly, stock prices plunged again sharply when the global pandemic was starting to exponentiate and measures being put in place to curb the spread (Yan 2020). The timing of changes in share prices also reflected changes in market expectations. For almost every sector, the changes in share prices did not take place slowly as the coronavirus spread across the world; instead, big dips in share prices occurred from the end of February 2020, soon after Italy introduced a lockdown in Lombardy (Griffith et al. 2020). Before this event, very little change in share prices had been witnessed in global markets except in China (Ozili 2020). Yan (2020) observed that the overreaction of the stock markets to the spread of COVID-19 was mainly due to uncertainty and a lack of investor confidence given the interconnectedness of modern economies through global supply chains that stood to be disturbed during the pandemic.

Ramelli and Wagner (2020) examined how stock prices reacted to the outbreak of COVID-19. They came up with three phases, which were (1) the incubation (2 January 2020 to 17 January 2020), (2) the outbreak (20 January to 21 February) and (3) fever (24 February to at least 6 March). The events initiating the outbreak and
fever periods markedly changed the attention of stock markets. This saw stock markets starting to indicate a general pessimism regarding the disruptive impact of COVID-19 on global trade (Gourinchas 2020). The emerging literature on the macro-economic impact of pandemics shows that the spread of the disease, and policy responses attempting to mitigate the spread, may result in large shocks to the value chains of different industries (Eichenbaum et al. 2020). These shocks may manifest in a variety of ways such as disruption to supply chains, shortages of labour, shutdowns of operations, the sudden drop in demand and difficulty in accessing credit lines. Those concerns, together with increased uncertainty, can lead to the decline in share stock values of the most impacted firms (Hassan et al. 2020).

The Chinese stock markets responded sensitively to the COVID-19 outbreak. Both the Shenzhen and Shanghai Composite Indexes dropped almost 3% on 23 January 2020. This represented the biggest single-day loss in almost 9 months (Ozili 2020) and was the incubation period of the pandemic. After the Wuhan lockdown was announced, investors were further unsettled by the drastic measure. Hence they sought safe havens for their investments. At the first trading day after the Chinese spring festival, market indices fell by 8% (Griffith et al. 2020). The markets then managed to slowly recover but dropped again when the WHO raised the risk level of COVID-19 to “very high” (Ozili 2020). Given that the global economy is now very interconnected and becoming more specialised with supply chains established worldwide, the COVID-19 event in China has ripple effects the world over. Once some firms along the supply chain were disrupted by COVID-19, almost all firms in the chain were affected. This was viewed by Yan (2020) as one of the factors that magnified the impact of COVID-19 on businesses and the stock markets by default. Global stock markets erased about US$6 trillion in wealth in 1 week from 24 to 28 February 2020 (Schoenfeld 2020). The S&P 500 Index also lost over $5 trillion in value in the same week in the USA. The S&P 500’s largest 10 companies experienced a combined loss of over $1.4 trillion because of fear and uncertainty among investors about how COVID-19 would affect firms’ profits (Ozili 2020).

There were huge losses in the stock market because of the COVID-19 panic from 2 January to 20 March 2020 (Schoenfeld 2020). The biggest losses were noted by the Russel 2000 Index, which dropped by a massive 39.2%, followed by the Dow Jones 30 Index that plunged by 32.3%. The S&P 500 stocks decreased in value by 28.6% at the onset of the pandemic (Schoenfeld 2020). This translated to an average economic loss of $18 billion per firm or close to $9 trillion in total for S&P 500 companies alone (Reinhart 2020). The companies that had the biggest declines in stock value were the Norwegian Cruises, Noble Energy, Royal Caribbean Cruises, Halliburton and Carnival. These hardest hit firms were mostly either in the tourism or energy sectors (Schoenfeld 2020). The reactions of the stock markets also suggest that pandemics were an important influence on stock markets but had not been given enough attention (Reinhart 2020).

The large drops on stock markets triggered market-wide circuit breakers, a record four times in March 2020. The circuit breakers provide safeguard pauses in trading for 15 min in the hope that the market will calm down (Fernandes 2020). The US Securities and Exchange Commission mandated the creation of these breakers to
prevent a repeat of the 1987 market crash when the Dow plunged 22.6% (Funakoshi and Hartman 2020). These had only been used once in 1997. Guidelines mandate that a 15-min pause in trading on all US stock exchanges occurs if the S&P 500 Index falls more than 7% before 3:25 p.m. New York time. The same 15 min will apply for level 2, which will be a drop of 13%. However, at level 3, if a drop of more than 20% occurs, then trading will be halted for the rest of the day (Funakoshi and Hartman 2020). Figure 13.2 shows selected stock market performances by country. It shows that the most profound drop in stock markets during the COVID-19 pandemic were recorded in South America, and Brazil and Colombia, with losses of 48% and 47%, respectively. This was followed by Greece (44%) and South Africa (40%) with Japan having the lowest drop of 25%.

The implied volatility of equity markets is often used as an indicator of how risky the current environment is for investment in the stock market and how uncertain the future will be. The VIX Index, for example, is commonly referred to as the “fear index” (Cboe 2020). It is based on the traded prices of options on the S&P 500 Index and represents the market expectation of stock volatility over the next 30 days (Fernandes 2020). In Fig. 13.3, the implied volatility is given by the VIX Index, whose long-term average is approximately 20%. However, as COVID-19 spread from a regional crisis in the Chinese Hubei Province to a global pandemic, equities plummeted, and market volatility rocketed upwards around the world. It rose significantly to 85% in February 2020 because of the rise in fears over the impacts of the coronavirus on investments. The coronavirus created such uncertainty around the world that two of the largest single-day drops in the Dow Jones Industrial average were in March 2020 (Funakoshi and Hartman 2020).

![Figure 13.2](image.png)

**Fig. 13.2** Selected stock market performances by country. (Source: Authors, based on Reuters Eikon (2020))
Prior to the sudden rise, the previous rise in the volatility of such a high magnitude was in the aftermath of the 2008/9 financial crisis. This also reflected investors’ uncertainty about the future (Fernandes 2020). Other smaller peaks in volatility that are shown in Fig. 13.3 depict episodes of uncertainty in the markets because of different negative news such as the American-China trade tariffs implementation, the Swine flu outbreak (H1N1) during March to May 2009, the outbreak of the Ebola virus in West Africa in October 2014 to January 2015 and many more. Of note is that when all of these past crises occurred, central banks had the firepower to prevent further damages (Fernandes 2020). None of the previous crises was in periods where the starting point of interest rates was close to zero with some in the negative. This raised concerns in the markets because there was little room for an effective policy response (Gerding et al. 2020).

After analysing daily historical jumps in the US stock markets that were greater than 2.5% up or down, Baker et al. (2020) observe 1129 stock jumps from 2 January 1900 to 24 March 2020. However, they note that before the COVID-19 pandemic, no infectious disease outbreak had ever made a sizable contribution to the USA stock market volatility. The 2003 SARS epidemic and the 2015 Ebola epidemic led to modest, short-lived spikes in volatility, and the Bird flu and Swine flu epidemics barely registered. Table 13.1 shows the historical jumps on US stock markets and the impact of the COVID-19 pandemic.

Albulescu (2020) analyses the relationships between the official COVID-19 announcements and volatility on stock markets. The analysis concluded that increases in the volatility were related positively with the increases in the infected number of people and the death ratio as of March 2020. Hence the persistence of COVID-19 had the potential to generate a new episode of international financial stress. Ru et al. (2020) argue that declines in stock market volatility would occur when the trajectory
of the pandemic becomes more certain. They also observe that stock markets reacted more quickly and strongly in countries that suffered from the SARS outbreak in 2003 compared to those that did not. This initial underreaction by countries that did not suffer from SARS lasted for several weeks until a series of severe outbreaks outside China began to occur in late February 2020, which led to the stock markets in these countries plunging. However, Gerding et al. (2020) maintain that stock price reactions were stronger in countries with a higher debt to GDP ratio.

### 13.4.2 COVID-19 Impacts on Tourism-Related Stocks

Tourism-related counters were observed to be some of the biggest losers during the COVID-19 outbreak. From the mobility market outlook on COVID-19 by Statista (2020), the revenue for the travel and tourism industry was set to decline globally in 2020, with Asia being the most affected region and set to decline from $225.8 billion in 2019 to roughly $165 billion in 2020. These figures refer to the cruises, hotels, package holidays and vacation rental segments of the travel and tourism industry. The tourism industry was, in particular, impacted when the travel prospects for Chinese tourists, who usually spend billions annually, were severely constrained (Yan 2020). There were increased flight cancellations, cancelled hotel bookings and cancelled local and international events worth over $200 billion (Statista 2020). Figure 13.4 shows a comparison of a global change in travel and tourism revenue because of COVID-19 by region from 2019 to 2020. This negative outlook was, therefore, also manifested in the fall of stock prices of the tourism-related companies as investors lost confidence in their ability to give a return on investment. The uncertainty in the industry was also heightened by a lack of a clear and effective roadmap to deal with the pandemic worldwide, and no specific time as to when normal operations of tourism players would be allowed to recommence.

The tourism-related stocks, also known as the BEACH stocks (BEACH – standing for booking, entertainment and live events, airlines, cruises and casinos, hotels and resorts), had over $332 billion in stock value evaporating due to COVID-19 between 19 February and 24 March 2020 (Lloyd-Jones et al. 2020). The next subsections unpack the extent of losses of by different BEACH companies during the COVID-19 pandemic.

### Table 13.1 Impact of COVID-19 on US stock market jumps

| Period                  | Number of daily US stock market moves greater than 2.5% | Number of moves attributed to pandemics | Number attributed to policy responses to pandemics |
|-------------------------|--------------------------------------------------------|----------------------------------------|--------------------------------------------------|
| 02/02/1900–21/02/2020  | 1116                                                   | 0                                      | 0                                                |
| 24/02/2020–24/03/2020  | 18                                                     | 7                                      | 8                                                |

Source: Authors, based on Baker et al. (2020)
Due to the outbreak of the coronavirus, initially, more and more people chose to stay at home rather than travel far to avoid the disease. This was also accompanied by the general corporate travel restrictions in the face of the pandemic. In the USA, the month of March is usually full of travel as most universities are on spring breaks, and students normally go on vacation (Lloyd-Jones et al. 2020). During the COVID-19 outbreak, in fear of the disease, most people limited travel to only essential movements and cancelled their pre-arranged trips. This led to the initial decline in demand for flights. Furthermore, as the virus continued to devastate communities, travel bans were instated by different countries, including popular tourist destinations. This led to further loss of demand for airlines. Due to the unprecedented amount of cancellations and uncertain future, investors started losing confidence in travel-related stocks resulting in significant drops in value (Yan 2020). Once the airlines were grounded because of the COVID-19 induced travel bans, a negative snowball chain reaction was inevitable in the tourism value chain. Online travel agencies such as Booking were first to go out of business because they earn money from the tickets they sell. This further plunged the global travel industry into uncharted territory. Since 19 February 2020, the global airline industry alone had witnessed $157 billion wiped off stock valuations across 116 publicly traded airlines (Lloyd-Jones et al. 2020).

The United Nations World Tourism Organization (UNWTO) hints that the COVID-19 crisis is impacting on travel like no other event in history (UNWTO 2020). This resulted in almost all 96% of destinations in the world imposing travel restrictions since February 2020. The restrictions included severe measures, such as the banning all travel in some destinations. Travel restrictions were further tightened...
soon after 11 March 2020 when COVID-19 was declared a pandemic. Most destinations instituted complete or partial closure of borders and suspension of flights. In reaction to the announcement of the pandemic, travel tourism-related stocks further plunged on the world stock markets. As of 6 April 2020, no destination had lifted travel restrictions introduced in the context of COVID-19, further reducing the hope that the sector was likely to have a swift recovery from the drop. Figure 13.5 shows declines recorded in share values of selected travel tourism companies.

From Fig. 13.5, it emerges that the hardest hit companies in this tourism segment were cruise ship companies, with the biggest losers falling well above 80% of their pre-COVID-19 value. In less than 2 months, the biggest players in the industry including the Carnival Corporation, Royal Caribbean and Norwegian Cruise Line Holdings lost more than $42 billion in combined market capitalisation, more than half of their value (Goldman 2020). The next impact in terms of losses was witnessed by airlines. Listed airline stocks plummeted with the tightening of travel restrictions that severely impacted demand. This saw Air Canada shares dropping by 67% and the International Consolidated Airlines, commonly known as IAG stock dropping by as much as 64%. The IAG owns British Airways, Iberia of Spain and Sun Air of Scandinavia. Companies such as Delta Airlines witnessed the fall of over 50% in the value of their shares, signifying the worst performance in the history of the company. Therefore, the airline industry was likely to continue losing revenue as long as the COVID-19 pandemic persisted with worldwide airline revenue estimated to fall by as much as $113 billion in 2020 (Neufeld 2020).

This fall of the global airline industry, which employs over ten million people and supports about $2.7 trillion in global economic activity and carries an average of 12 million passengers per day (Neufeld 2020) is troublesome. There will be huge ripple effects on the tourism value chain. For example, many travel booking brands

![Fig. 13.5 Declines in share value of travel tourism-related firms (19 February to 24 March 2020). (Source: Authors, based on Markets Insider (2020), Statista (2020), Visual Capitalist (2020))](image-url)
also plunged in value. Booking Holdings, the parent company to Booking.com, Kayak, Priceline and OpenTable, all witnessed share price drops of over 35% during this period. Companies such as the Flight Centre Travel Group suspended their earnings guidance for the 2020 fiscal year “in light of heightened coronavirus uncertainty”. The travel agency had previously downgraded its full-year guidance from an underlying profit before tax of between $310–$350 million and $240–$300 million (Markets Insider 2020). This further saw its stock price drop by 60% within a month, signalling the low investors’ confidence in the company. To prepare for the tough times, the company actioned cost reduction plans including shorter working weeks on proportionate pay, leave without pay, a freeze on non-essential recruitment and cuts on discretionary spending (Cullinane 2020).

13.4.2.2 Impact on Hospitality Counters

The COVID-19 pandemic and the related restrictions on travel, business activity and individual movement imposed an unprecedented impact on the hospitality industry. Hotel owners, operators, lenders and investors all faced bigger tests than ever anticipated as they had to grapple with plummeting occupancy, average rate and revenue per available room (Lloyd-Jones et al. 2020). In the end, multiple hotels globally announced temporary suspensions of normal operations in March 2020. This led to a loss of an estimated 24.3 million jobs globally, with 3.9 million losses in the USA alone (Neufeld 2020). Due to the decline in hotel occupancy during the pandemic period, the financial impact on the hotel industry was more severe than the 9/11 attack and the 2008/09 global financial recessions combined (Ozili and Arun 2020).

As this financial disaster for the hotel industry unfolded, investors were also grappling with important questions concerning risk, returns and value of hospitality shares. In reaction to the pandemic, hotel share prices realised significant declines all over the world. In the USA, an estimated $1.4 billion in potential revenue was lost each week due to the pandemic (Vigna 2020). The Baird/STR Hotel Stock Index, which serves as a benchmark for the sector’s overall health, declined by over 47% year-to-date as of March 2020 (Neufeld 2020). This shows the low confidence that investors had in this sector in terms of return on their investments during the pandemic. Figure 13.6 shows the declines in selected hospitality counter shares recorded between February and March 2020. The loss in stock value of hotels was significant, with hotels such as Park and Marriott Vacation Worldwide losing over 50% of their value, and between 38%–48% of its market value.

The damage to stock prices of the sector has ramifications for the hotel’s ability to service its debts. Most of these companies had a debt that needed to be serviced. For example, Marriott had $10.9 billion in debt, with Hilton holding approximately $8 billion (Vigna 2020). This brought the companies to a situation where they had to choose between debt payments and operations. The major flashpoint was containing the economic damage imposed by COVID-19. Hence, Marriott cut its staff numbers, closed several hotels, slashed salaries for its executives and suspended
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dividends to its shareholders. Without the crisis declared contained, it was difficult to assess with confidence how bad and permanent the damage imposed on hospitality shares and investment was and how long it would last (Vigna 2020).

13.4.2.3 Impact on Entertainment and Resort Counters

Entertainment companies and resorts also lost out during the COVID-19 pandemic. There were virtual shutdowns and almost abandonment of some of the tourist epicentres around the world. Visitors opted to stay home or were constrained in terms of travelling and social distancing measures. The chilling sights of almost deserted streets of popular resorts around the world such as the Las Vegas strip by default implied the loss in revenue and erosion of investor confidence in the sector. This led to the free fall in share prices of these companies. One of the biggest losers was the Eldorado Resorts, which reportedly lost over 76% of its value at some point. Figure 13.7 shows losses in share value of some of the world’s largest resorts and entertainment companies during the pandemic.

Disney, for example, closed its theme parks in China indefinitely during the Lunar New Year. This is a known high-volume week for their theme parks. Because theme parks are places where huge volumes of people crowd, to avoid super spreading the virus, the difficult decision to close them had to be made. This had a big negative shock on Disney’s revenue as its theme parks generated around 34% of its revenue. In addition, Disney planned to release the new movie “Mulan” on 27 March 2020, which was expected to be very popular in China (Owens 2020). However, as learnt from the SARS outbreak, data from the Hong Kong Box Office receipts showed that revenue dropped around 47% during the peak period and also decreased by 20% after 2 months. With
this experience in mind, fewer people would go to movie theatres, and the returns from the new movie would have been suppressed (Yan 2020). This loss in potential revenue led to Disney shares at one point tumbling by as much as 31% in value reflecting investor panic. It was anticipated that the global film industry as a whole stood to lose more than $5 billion as a result from the COVID-19 pandemic (Ozili and Arun 2020).

Companies in events management also registered big losses due to the COVID-19 outbreak. Madison Square Gardens, for example, lost as much as 35% of its share value and suspended all expansion projects. Prior to 2020, the events sector shares were generally doing well. In 2018, business events hosted more than 1.5 billion participants across more than 180 countries (Oxford Economics 2018). The events industry generated more than $1.07 trillion of direct spending, representing spending to plan business events, produce business events, business events-related travel and direct spending by exhibitors. The industry also created 10.3 million direct jobs globally (Events Council 2020). During the COVID-19 pandemic, the industry was hit financially by a large number of cancellations of exhibitions, live music shows, conference, weddings, parties, corporate events, brand launches and trade shows (Ozili and Arun 2020). With no prospects of the crisis ending soon, the industry suffered negative perception from investors, hence the decline in share values.

13.4.2.4 Impact on Sports-Related Counters

The COVID-19 pandemic also hit the sports industry hard at the start of 2020. The value of the sports industry was estimated to be $471 billion in 2018, which represented a 45% increase from 2011 (Hall 2020). The spread of the coronavirus
throughout the world forced the cancellations or suspensions of major global sporting events and professional leagues across the globe. Every part of the sporting value chain was being affected by the spillover effect of the cancellations (Neufeld 2020). This spelt trouble for listed sporting companies and big-name athletic companies and their stocks. Figure 13.8 shows the drop in share value of sports-related companies during the COVID-19 outbreak. Among the most affected was the Formula One (F1) season, which witnessed several of its races cancelled. The uncertainty surrounding the remaining dates in the F1 calendar led to the Formula One Group shares losing value on the stock market. The loss in value during the crisis amounted to over 44% of its value, which translated to over $5 billion (Quartz 2020).

Football-related shares were also negatively impacted by the outbreak of COVID-19. The free fall of football company shares started when they first played in empty stadiums to try and contain the virus, and it was then followed by the ultimate cancellation or postponement of matches. Among the biggest losers were Italian giants Juventus, which lost over 51% of its share value, followed by Borussia Dortmund and Manchester United, which lost 44% and 33% in value, respectively. With the football leagues postponed, the revenue streams of the clubs also declined. Hence the drop in share prices. The clubs as well as the firms in their value chain were the biggest losers. The list includes sponsors not getting value for their money, broadcasters, sportswear companies and betting companies.

Sporting is big business for gambling outfits. Betting companies such as Bet-at-home.com saw their share prices plunging by as much as 70% largely due to the cancellation of sporting events. This left their clients with nothing to bet on. This

![Fig. 13.8 Impact of COVID-19 on sports-related share values. (Source: Authors, Markets Insider (2020), Quartz (2020))](image-url)
weighed heavily on their revenue and also desirability as investment options. Most betting companies warned their investors that the suspension of major sporting events would have significant impacts on their business. Global sportswear giants such as Nike and Adidas’ share prices dropped by 12% and 14%, respectively. Most of their lucrative deals were impacted by the cancellation of global sporting events such as the Olympics and professional sporting leagues as well as the restrictions of the movement of people and closures of some stores which affected the demand for their products.

Sponsors who invest in these sporting companies were also affected by the COVID-19 pandemic. For example, Rwanda tourism invested heavily in football sponsorship to boost their tourism. They went into deals of over 40 million Euros with Arsenal and Paris Saint-Germain to have their “Visit Rwanda” slogan written on the team jerseys. Courtesy of this publicity, the country had witnessed an increase of over 25% in international arrivals (Wohlfahrt 2020). Hence, the cancellation in sporting activities and restrictions on movements meant sponsors were not getting value for their money and would in the future decide to invest their money in other areas where the return on investment was less risky.

After the meltdown in the share value of most of the sporting teams during the COVID-19 pandemic, the sustainability of some of the broadcasting and sponsorship deals was being questioned. Over the years, the collective power of professional leagues to sell media rights had been spectacular, to say the least. The USA’s NBA, for example, had TV deals worth over $24 billion over 9 years, and the English Premier League had deals with broadcasters worth $12 billion over 3 years (Hall 2020). The sporting shutdown meant that the leagues were unable to meet their commitments to broadcasters, hence limiting their ability to distribute income back to the clubs, impacting on their revenue, therefore, the decline in their share values. Investors shunned their stock because no games meant no TV deals, no match-day revenue, and no income for the sporting companies. The broadcasters were also left with gaps in programming and lost attractive content for advertisers due to the cancellation or postponement of sporting activities.

13.5 Conclusion and Recommendations

The research noted that no previous infectious disease outbreak, including SARS, the Spanish flu and Ebola negatively impacted the stock markets as the COVID-19 pandemic. The COVID-19 pandemic was an unprecedented example of a neglected risk that rocked public health systems and economies around the world. In particular, stock markets reacted negatively to the emergence and tumultuous spread of the disease. Measures put in place by governments around the world to try and contain and limit the spread of the contagion included travel restrictions, imposing lockdowns and banning of public gatherings. These measures, by default, were disruptive to the global value chains of different industries that had developed over the years. The disruptions further heightened levels of uncertainty on global stock mar-
kets leading to further declines in stock values. Three major events were noted to have significantly shocked the stock markets around the world during the COVID-19 pandemic. These were the lockdown in Wuhan, China, in January 2020, the lockdown in Lombardy, Italy, in February 2020 and the declaration of COVID-19 a pandemic by the WHO on 11 March 2020. Tourism-related stocks were some of the hardest hit in terms of a decline in value. This was because most of the measures put in place to control the spread of the virus were directly disruptive to the tourism value chain, for example, travel bans were instituted in over 96% of global destinations. Hotels were forced to shut down, flights were grounded, sporting events and professional leagues were suspended or cancelled, cruise ships were forced to suspend operations and popular resorts were deserted. This resulted in an unprecedented plummeting of stock prices of counters directly linked to this industry with some dropping by as much as 80% of their value over a period of just 2 weeks. The pandemic turned a very lucrative industry in terms of stock investments into one that was bankrupt and seeking government bailout packages to survive the shock in a period of just 2 months.

Governments around the world responded to the COVID-19-induced shock on stock markets by trying to reassure the markets through policy interventions and implementing multi-trillion dollar rescue packages for distressed industries. The markets responded well to these packages with some industries making steady recoveries. However, shares in the tourism sector largely remained in the negative, and recovery was subdued. This is because a great deal of uncertainty still remained as the pandemic continued. Hence, confidence in the sector could only return once the pandemic was under control, and restrictions on travelling removed. The full depth of impacts of falling share prices on the tourism industry due to COVID-19 can only be determined once the crisis is over. However, in the short term, the drop in share value will deprive tourism firms of the much needed revenue that they could have potentially used during both the impact and recovery phases of the crisis. Unlike during the SARS outbreak when the tourism-related shares values quickly recovered after the crisis and did not dent the long-term profitability of affected firms, the COVID-19 pandemic is likely to last longer and impact the long-term profitability of tourism ventures. Recovery of share values is also likely to take longer given the gradual opening up of economies and slow return of investor confidence in the sector. In the long term, if the crisis persists or takes too long to be contained, capital-intensive firms that survived the initial shock by reducing costs may start to struggle which may put governments under further pressure for support. Some players in the tourism industry may be forced to shut down permanently, resulting in the loss of employment as well as the skills and experience of their workers. As global stocks slowly recover from the impacts of COVID-19, tourism firms must take caution on the possibilities of second and third waves of infections that may yet again plunge stock prices.

Therefore, the chapter strongly recommends another wave of stimulus packages earmarked for the tourism industry, and its value chain once signs of the pandemic declining are visible. These packages need to be synchronised major state pro-
nouncements such as the lifting of restrictions on travelling and mass gatherings so that their effects are rapid and pronounced.

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