

# The Effect of Corona Virus Disease 2019 (COVID-19) on the Stock Performances of Hospitality and Airline Industries

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## ABSTRACT

The current global economy absolutely experienced a serious impact from Corona Virus Disease 2019 (COVID-19) pandemic. The COVID-19 pandemic not only brought various challenges and probabilities to many industries but also affected the future development trend and competition pattern of the industry. This paper focused on two industries including hospitality industry and airline industry about their stock changes before and after pandemic. This thesis also summarized the changes of substantial economy and stock prices of the hospitality industry and airline industry, based on a number of previous literature. In addition, influencing factors of stock price, such as investor sentiment were analyzed, and the impacts of government actions on these two industries were also summarized. In summary, both of the hospitality and airline industries experienced a period of sharp decline and slow recovery. This paper could provide a conclusion and reference for further research.

**Keywords:** COVID-19, Stock price, Hospitality industry, Airline industry, Investor sentiment, Government's policy

## 1. INTRODUCTION

In December 2019, the Corona Virus Disease 2019 (COVID-19) pandemic broke out in Wuhan, China. On January 2020, the first known death case was reported. Then, the World Health Organization (WHO) announced a global pandemic on March 11, 2020. Although governments of various countries have adopted different forms and levels of epidemic prevention measures, the COVID-19 is still wreaking havoc on global economic activity.

The hospitality industry faces great challenge, such as low profit margins and increasing competition. At the same time, the COVID-19 has a great impact on the airline industry. In the era before the COVID-19, airline industry is exposed to substantial risks [1]. For example, aviation fuel prices will fluctuate, which is a related risk faced by the airline industry. In the era of COVID-19, the airline industry is facing different risks and uncertainties, which are more serious than ever. In the context of

COVID-19, the hotel and airline industries have been particularly affected. Therefore, this is one of the reasons why this article analyzes the performance of these two industries.

With the impact of COVID-19 on the economy still uncertain, people urgently need to study the actual impact of the COVID-19 on the stock market. The impact of the COVID-19 on the stock income of the hospitality industry and the airline industry is an important issue worthy of in-depth study, and it is also a concrete manifestation of the impact of the COVID-19 on hospitality and airline industry.

This article analyzes the impact of the COVID-19 on the performance of the hospitality industry and airline industry stocks, analyzes the trends and reasons for the stocks of the hospitality industry and aviation industry, and mentions the unprecedented spread of the new crown pneumonia epidemic on investor sentiment and corporate operations a significant negative impact.

The reminder of this paper is organized as follows: Section 2 introduces the effects of the COVID-19 pandemic on the hospitality industry and airline industry; Section 3 introduces the variation trend and reasons of stocks of hospitality and airline industry; Section 4 introduces the impact of COVID-19 on hospitality and airline industries' stock returns; Section 5 concludes.

## **2. IMPACTS OF THE COVID-19 PANDEMIC ON HOSPITALITY AND AIRLINE INDUSTRIES**

The negative impact of the COVID-19 pandemic on the world has spread to many industries. Among them, hotels, restaurants, theme parks, and airlines have been affected the most [2]. In this paper, we select two representative industries: the hospitality industry and the airline industry, to analyze the losses and different effects of the COVID-19 through the study of their performance in the stock market.

### ***2.1. The Plight of the Hospitality Industry***

The hospitality industry around the world is facing a sharp decline in business activities [3]. For most hotels, closure orders and preventive measures reduce the ability of the restaurant to operate, leading to the fragility of the industry [4]. At the same time, the government's guidance requirements for epidemic prevention measures for the hospitality industry will also change with the development of the epidemic, which means that hotels will assume greater social responsibilities. For example, during the quarantine period, only a few hotels remained open to isolate the infected people and under strict health security measures [5]. Besides, due to the high epidemic of the virus and the different epidemic prevention policies in different regions, people feel a lot of pressure and dare not take risks in public places [2]. For example, people will have stricter hygiene requirements for hotels than before the epidemic, and hotels will have greater pressure to meet customers' requirements. Moreover, the training of staff on epidemic prevention measures is also a problem that hotels have to face during the epidemic. The mentioned problems above will lead to higher costs, less passenger flow, and eventually led to a very downward trend in the hospitality industry business.

### ***2.2. The Plight of the Airline Industry***

The performance of the airline industry, which is the related industries to the hospitality industry, cannot be ignored. As the pandemic has overwhelmed the medical systems in many countries, strict public health measures have been implemented [6]. These measures have hurt many companies, but are almost disastrous for the airline industry [7]. The airline industry has been hit hard due to the declining demand caused by strict travel regulations. The COVID-19 has a great impact on the global civil

airline industry. After the outbreak of the epidemic in late 2019, the global civil aviation traffic volume has dropped significantly, most international flights are completely stopped, and the global civil aviation transportation industry has lost hundreds of billions of dollars. Countries including Australia, China, South Korea, and New Zealand must adopt economic shutdown strategies to flatten the infection curve [8]. So far, the impact of COVID-19 is unprecedented.

## **3. VARIATION TRENDS AND REASONS OF STOCKS OF HOSPITALITY AND AIRLINE INDUSTRIES**

### ***3.1. Hospitality Industry***

As the decline of the tourism stock price, the impact of the pandemic has also been reflected in the foremost parts of the tourism industry, with the hospitality industry around the world facing a sharp drop-in business activity, certainly affected by consumer sentiment. From the research of Edwin et al., They sampled adult consumers across the country and then analyzed the survey data using binary linear similarity between dependent and independent variables. Their results showed that negative feelings that day did not influence respondents' decisions to go back to the hotel, accommodations, tours, and scenic spots, because some statistical criteria results did not show by the return of customers. However, when considering respondents' feelings, feelings of "disturbance" were positive and statistical criteria. While the result of the square matrix variable were not statistical criteria, which means that feelings of "disturbance" have a negative on interviewees' return to the hotel after getting to a certain affective level [9]. In addition, the erroneous judgment of the situation leads to the sales of shares during an outbreak, because most anxious investors are worried about future payments, and those anxious investors seem most unlikely to take risks [10]. So, during the COVID-19 pandemic, even if stocks show an upward trend, investors will consider the environment and sell their stock at lower prices, which generates a drop in the stock price of popular industries such as the hospitality industry.

After 2020, tourism activities seem to increase which leads to the increasing of hospitality stock returns [11]. Since then, research has shown changes in hospitality stock prices in the pandemic. Lee et al. [2] compared their data with their earlier result that unpredictable spreads of COVID-19 pandemic play an important role on hospitality stock prices. For the stock market, the unpredictable spread of pandemics hurts it, which also affects the hospitality industry stock price [2].

### **3.2. Airline Industry**

The COVID-19 pandemic also has some negative impacts on the airline industry.

From Zhang et al. research, they use China as a sample and made some surveys. In their study, they used two types of data. The first is flight booking data for passengers, which includes information about passengers and ticket postings. The second is dynamic flight data from UmeTrip. They found that under normal circumstances, the airline market would face a major shake-up as a result of the pandemic, and there was a slight change in the psychology of the passengers. Public transports will rebound more quickly. However, passengers' psychology has not fully recovered in most cases, and this is reflected in passengers' relative conservatism. What's more, the proportion of people who book in advance is different from that of middle-aged people. In addition, older passengers and children are banned from traveling. Second, the total number of rebounding cases in local areas did not change significantly, but it had more influence on the proportion of refunds and change of airline tickets. Higher turnover rates mean higher risk for airlines. As pandemics become the norm in 2021, airlines should plan to implement refunds and ticket changes as a way to respond to the local pandemic backlash. Finally, due to the decision to implement strict quarantine measures, travelers are also opting to check-in at airports earlier in 2021. That means passengers will spend more time at airports. Meanwhile, the consumption potential of passengers can be further tapped [12].

From the research made by Bebonchu et al., The COVID-19 pandemic appears to be having a major impact on the U.S. airline industry. Even though some immediate actions were given by the US federal government used to prevent the industry from going bankrupt, domestic and international travel restrictions, as well as reduced demand for air travel from passengers fearing of the pandemic, caused the airlines' revenues, profitability, and the plummet of stock price. It is found that the negative effects caused by the COVID-19 pandemic still exist, after 2021. And these negative effects are also caused by the reduction of air travel. What is more, the attitude of investors also affects the recovery of the stock price in the airline industry [13].

## **4. THE INFLUENCE OF COVID-19 ON STOCK RETURNS OF HOSPITALITY AND AIRLINE INDUSTRIES**

### **4.1. Analysis of Hospitality Industry**

In the research of Clark et al., they used 154 hospitality firms sample from 23 different countries or regions that were publicly traded on the stock market to analyze the daily abnormal stock price return of the

hospitality industry during the pandemic. Employing data from February 21, 2020, to March 31, 2020, the authors documented that the COVID -19 pandemic has taken a significantly statistical and economical toll on hospitality stock returns. Moreover, according to the analysis of Clark et al., the pandemic was highly negatively correlated with the abnormal returns of this industry. The cumulative raw returns of its sample firms suffered a greater loss than the cumulative S&P 500 Index returns [14]. It is shown that the hospitality industry stocks were the hardest hit overall. The above results are supported by the research of Lee et al, in which structural vector autoregression (SVAR) was employed to evaluate the dynamic linkages among the pandemic, market fluctuations, and stock returns of the Chinese hospitality industry [2]. The research concluded that the spread of the pandemic has a negative influence on the hospitality industry's returns.

There are also some supportive researches including the work of Ashraf [15], and Al-Awadhi et al. [16]. It is demonstrated that changes in the share return of the hospitality industry had a negative correlation with the increasing cases of COVID-19 infection.

### **4.2. Analysis of Airline Industry**

As a related industry, the airline industry had also suffered a great loss since the outbreak of the pandemic, which was presented specifically through the volatility of the airline industry's stock returns. In the research of Maneenop et al. [17], the event study method was employed to examine how the COVID-19 outbreak impacted 52 airline stocks samples globally. They have proved that the airline stock returns have reduced more sharply compared with the whole stock market returns during the determined event periods around the COVID-19 outbreak. On the other hand, in Liu et al.'s research, the volatility of stock indexes in the Airport Shipping Set (ASSI) in China was investigated through a combination of the ARCH&GARCH Models [18]. It is found that the high volatility due to the outbreak caused not only high uncertainty to share prices but also high risks to stock returns. However, they have decreased in the long-term and the ASSI was becoming less volatile as stock prices and returns were continuing to rebound. One possible reason was that airline stocks benefited from the lower costs of oil prices and the rise of RMB exchange rates. Another reason was that the airline service recovered with shipping increase due to the government's control policy and financial aid plan. The former conclusion is in line with that derived by Maneenop et al., who noted that stock prices of Asia-based airline companies suffered less compared with the other sample firms, partly because its nations' government has implemented some remedy plans [17].

### **4.3. Influencing Factors in the Hospitality and Airline Industries' Stock Returns**

According to the previous research review, investors' sentiment, turbulence during the pandemic outbreak, and fluctuations in macro stock market returns are three essential influencing factors of the stock returns fluctuations of both the hospitality and airline industries. Firstly, COVID-19 undermined consumer and business confidence [8], causing investors' panic [19], and their lower expectation of the future return has made them more risk-averse and tended to sell off shares during the outbreak period. Secondly, the pandemic has gravely damaged the global economy and led to incalculable economic losses [16, 20]. Thirdly, the changes in market returns' negative impact on hospitality and airline stock returns are consistent with the conventional finance theory that considers the systematic risk as to the most significant influencing factor for the stock returns [21].

Wu et al. revealed that the pandemic has negatively influenced the hospitality and airline industries' stocks returns, while government response reduces the negative effect [22]. Ashraf pointed out that the government's financial support plan in time had positively helped the recovery of the stock market [23], which is supported by the research of Narayan et al., who demonstrated that government quick responses were helpful in increasing stock returns [24]. The possible reason is that the financial aid policies increased financial liquidity capacity in the stock market and mitigated investors' worries of uncertainty, therefore offsetting the negative influence of COVID-19 on the stock returns [25]. Since the changes in stock market return are the major factors that influence industry return [21], the recovery of the stock market due to the government aid policies, has consequently increased the return of the airline and hospitality industries.

## **5. CONCLUSION**

This present review, by summarizing more than 30 pieces of literature, focused on the COVID-19 pandemic's effects on the stock performances of hospitality and airline industries in the early stage. It is found that the COVID-19 pandemic has severely damaged both industries and caused the industries' stock price and return to plummet. For hospitality and airline industries, the unprecedented outbreak of the pandemic had a dramatically negative influence on investors' sentiment and business operation, therefore, causing systematic risks to these two industries. It is also observed that government response in time had positive effects on speeding up the recovery of the industries by providing financial support and enhancing the investor's confidence.

The findings of our paper might be of significant interest to investors that desire to allocate their assets

more effectively, by this they would further consider the fluctuation risk in industry stock return caused by the pandemic, given to their significantly close relationship that illustrated in this paper. This also enables them to make predictions based on the varying trend of industries during the era of the COVID-19 pandemic. Our paper also provides a reference for policymakers who aim to reduce the uncertainty and fear from the pandemic, stabilize the financial markets and implement appropriate government assistance to those hospitality and airline companies that struggle to survive. Hopefully, it could offer a comprehensive point of view on the hospitality and airline industries' performances during the COVID-19 outbreak.

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