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Impact of COVID-19 Pandemic on the Stock Prices Across Industries: Evidence from the UAE

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Abstract

The aim of this paper is to evaluate the impact of the COVID-19 pandemic on the stock prices of the companies traded on the UAE financial markets (Abu Dhabi Securities Exchange and Dubai Financial Market). The time series regressions have been applied to estimate the impact of COVID-19 data on the companies' stock prices movements. The data cover the period between January 29th, 2020, and January 5th, 2021. The data was collected from the website of the Federal Competitiveness and Statistics Centre of the UAE. The empirical results of this study show that the stock prices are negatively and significantly affected by the number of COVID-19 positive cases and the number of death while they are positively and significantly affected by the number of recoveries. The results vary from one industry to another. These results would be important to the policymakers and financial regulators in developing the needed policies to improve the stock markets' resilience and maintain financial and economic stability. In addition, the findings would be useful to the investors and portfolio managers in taking the most appropriate investment decisions and managing more efficiently their portfolios. This paper will shed light on the responsiveness of the UAE financial market to the COVID-19 pandemic.

Keywords: COVID-19 Pandemic, Stock Prices, Financial Markets, Time Series, UAE

JEL Classification Code: G01, G4, N25

1. Introduction

COVID-19 is an infectious disease that began in the Chinese city of Wuhan in December 2019 and then spread around the world. On March 11, the World Health Organization (WHO), had declared COVID-19 as a pandemic. As of January 5th, 2021, the total number of confirmed COVID-19 cases had reached globally 85,937,939, the number of deaths was 1,857,994 and the number of recoveries was 60,829,047. The five most infected countries are United States (21,461,831 cases), India (10,375,477 cases), Brazil (7,756,861 cases), Russia (3,284,384 cases) and United Kingdom (2,774,479 cases). At the international level, the UAE is in 44th place with 216,699 total cases, 193,321 recovered cases, and 685 death cases with a fatality rate of 0.3%. According to the UK's Global Soft Power Index, the UAE is ranked #1 in the Middle East area in effectively dealing with the COVID-19 epidemic. Furthermore, according to the Global Competitiveness Report, Special Edition 2020, in relation to the countries' performance in overcoming the COVID-19 pandemic, the UAE is the top Arabic country, ranking second in the international ranking of Information and Communication Technology with a score of 92.3 and fourth in the digital legal framework with a score of 72.5. Hence, the UAE economy is the most resilient to the COVID-19 pandemic in the Middle East and Gulf Cooperation Council (GCC) region.

In this challenging time and context of uncertainty, analyzing the influence of the COVID-19 pandemic on financial markets is becoming increasingly relevant, as it represents how investors should expect a market reaction, make investment decisions, and manage their portfolios efficiently.

The impact of the recent pandemic on the different types of financial markets has attracted the interest of many researchers. The studies could be classified according to the different types of impacts: impact on the stock markets of

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only one country (Albulescu, 2021; He et al., 2020; Mazur et al., 2021; Haroon & Rizvi, 2020; Goh & Law, 2002; Chen et al., 2007; Mirza et al., 2020, Azimli, 2020, Herwany et al., 2021, Tu & Hoang, 2021), impact on several international stock markets (Cepoi, 2020; Khan et al., 2020; Salisu &Vo, 2020; Ashraf, 2020; Zhang et al., 2020), impact on the cryptocurrencies returns (Colon et al., 2020; Mnif et al., 2020), impact on the commodities markets (Gharib et al., 2021), and the long-term impact of the different pandemics, including among others COVID-19 (Bai et al., 2021; Shehzad et al., 2020).

Although there are similarities between this study and the above-mentioned papers, it goes further to examine the impact during a longer period. In addition, this research considers an emerging market located in the GCC region. This is a very interesting research topic because, in the UAE, there is an emphasis on supporting further the financial markets to perform better and impact positively the economy.

Against this background, this research contributes to the existing studies on the impact of COVID-19 in three important ways. First, this study focuses on an emerging market in the GCC region while all the other studies have considered the developed financial markets. Hence, the impact of COVID-19 on an emerging market needs to be examined as well, since this COVID-19 has been spread to all the countries across the world. Second, this study considers a period of 11 months while all the analysis of all the previous studies is limited to three or four months. Third, the previous studies have focused on the number of COVID-19 cases as well as the number of deaths while the actual study goes beyond and considers the number of active cases as well as the total number of tests. To the knowledge of the author, there is no study done yet on the impact of COVID-19 on both UAE financial markets the stock prices across the industries, so this research will shed light on the responsiveness of the UAE financial market to the COVID-19 pandemic and will recommend to the UAE regulators to develop financial policies and implement effective mechanisms to maintain the financial and economic stability as well as to overcome in the future the potential impacts of any pandemic on the financial markets performance.

This research includes all the companies trading on the UAE financial markets (ADX and DFM). The COVID-19 data has been collected from Federal Competitiveness and Statistics Authority and shows an exponential increase in the total number of tests. The increase in the number of confirmed cases was not stable till March 31, 2020, and from then the number started increasing continuously. The impact of COVID-19 data on the stock prices has been examined by time series data regressions. The empirical results reveal that the numbers of confirmed cases, deaths, and tests affect negatively and significantly the stock prices while the number of recovered cases is associated positively and significantly with stock prices. These results contribute to the literature about the impact of the pandemics by presenting a better knowledge about the reaction of the UAE financial markets as well as a further understanding of the prices' movements. This would help the stockholders to optimally take their investment decisions and manage more efficiently their portfolios.

The remainder of this paper is as follows: Section 2 includes literature review, section 3 presents data and methodology, section 4 focuses on empirical results. Section 5 gives the conclusions.

2. Literature Review

2.1. COVID-19 Timeline in the UAE

After the COVID-19 has been declared by the World Health Organization (WHO), on March 11th, as a pandemic, the UAE government has taken many precautionary measures during March, such as the closure of all the schools and universities for four weeks and then the resumption of the classes in virtual mode, the activation of remote working in governmental and private companies, the closure of all the commercial centers and fresh food markets except pharmacies and the food retail outlets, and the activation of the national sanitization program. In April, social distancing measures have been implemented along with the necessity to wear face masks and gloves in public spaces, and the first COVID-19 testing center was opened for the public. During May, the commercial centers and the restaurants have been allowed to gradually open with a maximum capacity of 60% along with the prohibition of people older than 60 years and children younger than 12 years to enter these places to ensure their safety. In June, the total number of COVID-19 tests was increasing continuously and reached a daily number higher than 50,000. In July, the total number of COVID-19 tests had reached four million and the UAE was the first in starting phase three of clinical trials of Sinopharm vaccine on individual volunteers. In August, the number of volunteers had reached 5,000. In September, the daily number of COVID-19 tests had reached more than 100,000. In October, the UAE started phase three of clinical trials of the Russian vaccine. In November, the daily number of COVID-19 tests had reached more than 130,000. In December, the UAE Ministry of Health and Prevention had announced that the Sinopharm vaccine has a level of 86% effectiveness against the virus infection. In January, the UAE has launched a free vaccination campaign for all the nationals and residents, and a new vaccination center was opened for Pfizer-BioNTech to meet the higher demand for the vaccine. There are four types of vaccines available in the UAE: Sinopharm, Pfizer-BioNTech, Sputnik, and Oxford-AstraZeneca. Until January 5th, 826,301 vaccine doses have been administered and globally the UAE has

the second-highest vaccination rate. The UAE target is to reach 50% of the population to be vaccinated by the end of March 2021.

2.2. Impact of COVID-19 on the Financial Markets

The spread of the COVID-19 pandemic over many countries has increasingly attracted the interest of researchers in examining its different impacts on the financial markets. In fact, Azimli (2020) examined the US stock markets and more precisely the impact of COVID-19 on the risk-return relationship. By using quantile regressions and considering data over the period January 1, 2020, and March 31, 2020, the findings indicated that the pandemic has moved the left-tailed dependence between risk and return in normal times to right-tailed dependence leading to a shift in the risk-return structure. This result was explained by the change in the investors' risk aversion behavior during the period of crisis. Albulescu (2021) tested the effect of COVID-19 data and official announcements about the new infection cases and fatality ratio on the volatility of the US markets during the period between March 11, 2020, and May 15, 2020. By using OLS regressions, the empirical outcomes showed that the number of newly infected cases, as well as the fatality ratio, are positively and significantly associated with the volatility.

In the cross-industrial studies, He et al. (2020) examined the impact of COVID-19 on the Chinese financial markets performance and more particularly the stock prices of the different industries by using the approach of event study and considering a time interval from June 3, 2019, to March 13, 2020. Their empirical results revealed that the stock prices of the companies in the industries of agriculture, constructions, mining, transportation, real estate, environmental, electric, and heating industries have decreased however those of the manufacturing and information technologies industries have increased. The stock prices of the companies in the industries of wholesale and retail have not been affected. Mazur et al. (2021) explored the impact of COVID-19 on US stock markets by differentiating between the industries. This analysis includes 1,500 companies listed on S&P 500 and considers the data during the month of March 2020. The empirical results showed that the impact of the COVID-19 pandemic varies from one industry to another. More particularly, the stocks of the companies in the industries of natural gas, food, healthcare, and software earn positive returns while those in the industries of crude petroleum, real estate, entertainment, and hospitality have been negatively affected by this pandemic and lost 70% of their market capitalization. In addition to this negative impact, these companies had poor performance followed by cutting costs, remuneration, and bonuses as well as the departure of the executives. Similarly, Haroon and Rizvi (2020) examined the relationship between the sentiments related to COVID-19 news and the volatility of the US stock markets. By considering three indices: panic index, sentiment index, and media coverage index, and a sample period between January 1, 2020, and April 30, 2020, the findings revealed that the panic is positively associated with the prices' volatility for all the industries and the impact is stronger in the industries of transportation, automobiles and components, energy, and travel and leisure as their activities haad stopped during the outbreak.

More recently, Herwany et al. (2021) examined the impact of COVID-19 information on the stock prices of different industries on the Indonesian Stock Exchange. The empirical results revealed that the abnormal returns, calculated over a period of time ranging between 30 days before and 30 days after, vary from one sector to another. More particularly, the accumulated abnormal returns have decreased for the finance, real estate, and construction industries and this decrease was due to the reduction in the exportation and production activities. The accumulated abnormal returns increased for the agriculture, mining, consumer goods, chemicals industries while they remained the same for the sectors of transportation, utilities, and infrastructure. Similarly, Tu and Hoang (2021) investigated the impact of COVID-19 news on the stock prices of companies traded on the Vietnam Stock Exchange and operating in different industries. The empirical findings show a negative association between the daily increase of the newly confirmed cases and the companies' stock prices. In addition, the results reveal that the companies in the utility sector are the most affected and this impact was explained by the immediate and irreparable closure of many manufacturing lines as well as the low demand for basic necessities.

Other studies have compared the impact of COVID-19 between many international financial markets. In fact, Cepoi (2020) explored the impact of COVID-19 news on the stock market reaction of the top six most affected countries. The study includes many news indices (panic index, media hype index, fake new index, country sentiment index, contagion index, and media coverage index), analyses data during the period between February 3, 2020, and April 17, 2020, and applied panel quantile regressions. The results indicated that the stock markets' reaction is different from one index to another. More particularly, fake news has a non-linear impact during the normal market (25^{th} to 75^{th} quantile). The media coverage and contagion indices are negatively and monotonically associated with the stock returns during the recovering period (middle and superior quantiles). Similarly, Khan et al. (2020) have examined the impact of COVID-19 on the financial market of sixteen countries and compared the stock returns between the outbreak and non-COVID periods. Their analysis covers the period of time between April 9 2019, and April 13, 2020. The empirical results indicated that the announcement of COVID-19 information

has negatively affected the stock markets indices and the growth rate in the weekly number of newly infected cases has decreased the weekly return of the different financial markets. In the comparison between pre-COVID pandemic and outbreak periods, the findings showed that the financial markets did not react to the early announcement of the virus spread and they were well-performing but later on, the announcement of the human transmissibility had severely affected the stock returns. This result was corroborated by Salisu and Vo (2020) who investigated the impact of COVID-19 news on the predictability of the stock market return by considering the 20 most-affected countries with the highest reported number of cases and deaths as of March 30, 2020. The findings showed that the stock returns are negatively associated with the health news about the increase in the numbers of COVID-19 cases and deaths.

By considering a larger sample, Ashraf (2020) explored the impact of the COVID-19 pandemic on the financial markets by considering 64 countries during the period January 22, 2020, to April 17, 2020. In this research, the COVID data was limited only to two variables: the number of cases and the number of deaths. The empirical results revealed that the stock markets have been negatively and quickly affected by the number of cases while they have been negatively and slowly affected by the number of deaths. In the same international research spirit, Zhang et al. (2020) investigated the short-term impact of COVID-19 on the volatility of the stock markets of the top 10 affected countries. This study included data up to March 27, 2020. By using the volatility and correlation analyses, the results revealed that the news about the pandemic had increased the standard deviation as well as the uncertainty on the stock markets. In addition, they show that the European markets are highly correlated to each other while the American and Asian markets are isolated. Although the COVID-19 pandemic started in China, it did not affect quickly the other international financial markets.

In an extension of the previous studies about the impact of COVID-19 on the financial markets, Mirza et al. (2020) considered three types of investment funds available on the European financial markets. The funds include the capital market funds (equities, debt), the money market funds (treasury, corporates), and the alternative investment funds (private equity, real estate, venture capital, social entrepreneurship, infrastructure). This study is about the impact of the COVID-19 pandemic on the price reaction as well as the timing and the volatility of the above-mentioned funds and it covers the period between January and June 2020. By using an event study approach, the findings showed that all the investment funds have been negatively affected by the pandemic except the social entrepreneurship funds that experienced resilience vis-à-vis the pandemic.

By considering different types of markets, Colon et al. (2020) and Mnif et al. (2020) studied the impact of the COVID-19 pandemic on the cryptocurrency market behavior and efficiency as they are complex and based on speculation. Colon et al. (2020) investigated the impact of COVID-19 on the trading in three cryptocurrencies (Bitcoin, Ethereum, and Tether) as safe-haven investments on six international stock markets. The values of all the cryptocurrencies have been considered in US dollars and the analysis covered the period from April 11, 2019, to April 2020. The empirical results showed that the returns of both Bitcoin and Ethereum have been negatively affected by the pandemic while Tether was found as a safe investment during the COVID-19 crisis. The results of Bitcoin and Ethereum have not been corroborated by Mnif et al. (2020) who had analyzed the impact of the COVID-19 pandemic on five cryptocurrencies (Bitcoin, Ethereum, Ripple, Litecoin, and Binance). The study looked at the influence of COVID-19 on the various cryptocurrency markets from the day each cryptocurrency was created through May 19, 2020, and it was split into two periods before and after December 31, 2019, to examine the impact of COVID-19 on each cryptocurrency market separately. The empirical results indicated that these top five cryptocurrencies are more efficient after the COVID-19 outbreak.

All the previous studies have examined only the short-term impact of the COVID-19 on the financial markets while Bai et al. (2021) and Shehzad et al. (2020) have investigated the long-term impact on the stock markets. In fact, Bai et al. (2021) had studied the impact of the different pandemics on the international stock markets volatility and considered the top four largest markets (China, Japan, the US, and the UK) during the period between January 2005 and April 2020. During this period, many pandemics have been declared by the WHO as follows: Avian influenza in 2005, H1N1 swine influenza in 2009, Polio in 2014, Ebola pandemic I in 2015, Zika in 2016, Ebola pandemic II in 2019, and recently COVID-19 in 2020. Their empirical results indicated that all the infectious diseases have positive impacts on the volatility within the last 24 months. Shehzad et al. (2020) had compared the impact of the global financial crisis and the impact of COVID-19 on the US, Italian, German, Chinese, and Japan's stock markets during the period June 30, 2007, and April 07, 2020. Their findings showed that the negative impact on the US and European markets during COVID-19 is more significant than the impact of the financial crisis while the Asian markets have not been that much affected due to the leverage effect and better diversification opportunities on these markets. With regards to the commodities, Gharib et al. (2020) explored the impact of the COVID-19 pandemic on the relationship between crude oil and gold prices during the period January 4, 2010, and May 4, 2010. During this time period, and more specifically on April 21, 2020, the price of crude oil fell below zero for the first time in history, while the price of gold rose. The reduction in the price of oil and the decline in the level of worldwide stock markets justified this surge, indicating that gold remains a safe haven investment even amid the pandemic crisis.

2.3. Hypotheses Development

The above-mentioned studies indicate that both information about the number of newly infected cases and the number of deaths negatively affect the financial markets' performance while the number of the recovered cases is positively associated with the stock markets' performance. In the light of this, the three following hypotheses have been formulated:

H1: *The stock prices are negatively affected by the number of newly infected cases.*
H2: *The stock prices are negatively affected by the number of deaths.*
H3: *The stock prices are positively affected by the number of recovered cases.*

In addition, this study includes more data about COVID-19 such as the number of active cases and the number of tests. In fact, the number of active cases is defined as the difference between the total number of infected cases and the total number of deaths and recoveries. This number refers to the persons who are still infected with COVID-19 and they can transmit the virus to others and may lead to a further spread of the virus. Therefore, the following hypothesis has been predicted:

H4: *The stock prices are negatively affected by the number of active cases.*

In terms of the total number of COVID-19 tests, the UAE is ranked first at the international level as it performed in the month of December the highest number of tests with an average number of 47,857 which is equivalent to 489.9 tests per day for every 100,000 persons. This high number of tests reflects the excellent efforts of the UAE in managing well the COVID-19 crisis and limiting the spread of the virus. Consequently, the following hypothesis has been developed:

H5: *The stock prices are positively affected by the number of tests.*

3. Data and Methodology

3.1. Data

The aim of this paper is to examine the potential impact of the different COVID-19 information on the market price of all the companies listed on ADX and DFM using data during the period between January 29, 2020 (the date of the announcement of the first positive COVID-19 case in the UAE), and January 5th, 2021, (the first day of the announcement of the vaccine doses). The data about COVID-19 information was obtained from the Federal Competitiveness and Statistics Authority while the market data was collected from Bloomberg Terminal. The choice of the companies is based on the availability of the market price information. The number of companies included in this analysis is 128 and the companies are operating in different industries as shown in Table 1.

3.2. Variables

The different variables used in this study are shown in Table 2.

Table 1: Companies and Industries

Industry	Number of Companies
1. Banks	19
2. Consumer Staples	9
3. Energy	11
4. Industrial	13
5. Insurance	30
6. Investment and Financial Services	13
7. Real Estate	18
8. Services	8
9. Telecommunication	3
10. Transportation	4
Total	128

Table 2: Variables

Variables Names	Definition
Price	The daily closing price
Confirmed	The daily number of new COVID-19 confirmed cases
Recovered	The daily number of new COVID-19 recovered cases
Death	The daily number of new COVID-19 death cases
Test	The logarithm of the daily number of COVID-19 tests
Active	The logarithm of the daily total number of COVID-19 actives cases

3.3. Methodology

The aim of this study is to examine the impact of the different COVID-19 information on the daily market price in the UAE financial markets. It employs different types of times series regression analyses. The general form of the model is as follows:

$$\begin{aligned} PRICE_{i,t} = {} & \beta_0 + \beta_1 CONFIRMED_{i,t-1} + \beta_2 RECOVERED_{i,t-1} \\ & + \beta_3 DEATH_{i,t-1} + \beta_4 TEST_{i,t-1} + \beta_5 ACTIVE_{i,t-1} \\ & + Industry + \varepsilon_{i,t} \end{aligned}$$

4. Empirical Results

4.1. Descriptive Statistics

Table 3 presents the descriptive statistics of the daily market prices as well as the daily information about COVID-19. The average market price is AED 18.95. The average number of COVID-19 positive cases per day is 694.54 with the highest number of cases announced on January 5th, 2021 (1967) while the average number of recovered cases is 919.61 with the highest number of cases announced on September 6th, 2020 (2433.) The number of deaths has a daily average of 2.19 with the maximum number of cases announced on May 10th, 2020 (13). The average daily number of COVID-19 tests is 69,173.38 with the maximum number of tests done on December 11th, 2020 (163,352). The total number of active cases per day is 9,430.91 with a maximum number of cases announced on December 21st, 2020 (24,173).

Table 4 shows the correlations between the daily market prices and the information about COVID-19 information. As shown below, the price is negatively and significantly correlated to the number of confirmed cases, recovered cases, death cases, the total number of tests as well as the number of active cases. While all the COVID information cases are positively and significantly correlated to each other.

4.2. Impact of COVID on the Companies' Stock Prices

In this research, time-series regressions have been applied. The tests of variance inflation factor (VIF), Durbin–Watson, and Breusch-Pagan have been performed to check for multicollinearity, autocorrelation, and heteroskedasticity, respectively. Both correlation matrix and VIF indicate the existence of multicollinearity between the independent variables. This problem has been solved by removing from the regression the ACTIVE variable because it has a VIF factor higher than 5. In addition, the Durbin-Watson test confirms

Table 3: Descriptive Statistics

Variables	Mean	Standard Deviation	Minimum	Maximum
Price	18.95	77.49	0.09	1,318
Confirmed	694.54	456.03	0	1,967
Recovered	619.61	508.10	0	2,443
Death	2.19	2.14	0	13
Test	69,178.38	43,606.74	75	163,352
Active	9,430.91	6,038.723	4	24,173

Table 4: Correlation Matrix

	Price	Confirmed	Recovered	Death	Test	Active
Price	1.000					
Confirmed	−0.0326*	1.000				
Recovered	−0.0256*	0.6134*	1.000			
Death	−0.0193*	0.5389*	0.0549*	1.000		
Test	−0.0288	0.5491*	0.6291*	0.0991*	1.000	
Active	−0.0338*	0.8559*	0.7435*	0.4017*	0.6253*	1.000

*Significant at a level of 5%.

the existence of autocorrelation which has been solved by using the difference model. Furthermore, the Breush-Pagan test also confirms the existence of heteroskedasticity, and this problem was solved by converting all the independent variables into the logarithmic form.

Table 5 shows the empirical results of the impact of COVID-19 data on the companies' stock prices. More particularly, time-series regressions reveal that both the number of confirmed cases and deaths have negative and significant impacts on the stock prices which confirm hypotheses 1 and 2. The impact of the number of recoveries is positive in all the models. This result validates hypothesis 3. With regards to the impact of the number of active cases, this variable was removed from the model due to its high correlation with the number of the newly confirmed cases and led to the problem of multicollinearity in the regression. The influence of the number of tests was predicted to have a positive impact on stock prices, contrary to hypothesis 5, but Table 5 reveals that this number has no significant impact on stock prices. As per the empirical results, the number of total tests is not taken into the investors' consideration who focus more on the number of newly confirmed, recovered, and death cases.

4.3. Impact of COVID on the companies' Stock Prices per Industry

The base model has been applied by differentiating between the industries to further investigate the impact of COVID-19 data on stock prices, and the empirical results are provided in Table 6.

The findings show that both newly confirmed cases and deaths have negative and significant impacts on the stock prices of the companies operating in most of the industries except the consumer staples, insurance, and telecommunication. With regards to the number of recovered cases, it is positively and significantly associated with the stock prices of the companies operating in all the industries except the insurance companies for which the number of recoveries has a negative and significant impact on their stock prices. In contrary to all the other industries, all the COVID-19 data has a positive and significant impact on the consumer staples companies as this industry includes the food and beverage companies that have generated higher returns during the confinement. In addition, the results show that the most negative industries are banks, investment and finance services, and transportation.

According to the impact of COVID-19 on the stock prices of the different companies, this study has divided the industries into three main categories: the negatively affected industries (banks, energy, industrial, investment and finance services, real estate, services, and transportation), the most resilient industries (insurance and telecommunication) and the positively affected industry (consumer staples). These results provide the investors with a clearer idea and evidence about the impact of COVID-19 on the stock prices of the companies operating in different industries which would help them in taking the most appropriate decisions related to the management of their portfolio during the pandemic.

5. Conclusion

The aim of this study is to investigate the impact of COVID-19 on the stock prices of the companies traded on the UAE markets by differentiating between the industries and considering the period of time between January 29, 2020, and January 5th, 2021. The empirical results reveal that the daily data about the newly infected cases and the deaths are negatively and significantly related to the stock prices. Only the number of recovered cases has a positive and significant relationship with the companies' stock prices as

Table 5: Time Series Data Regressions

	Time Series Regressions				
	(1)	(2)	(3)	(4)	(5)
$CONFIRME_{D\,t-1}$	−0.0090*** (−4.83)				−0.00655** (−2.27)
$RECOVERED_{t-1}$		0.0817** (2.57)			0.0079*** (4.12)
$DEATH_{t-1}$			−0.0813*** (−3.07)		−0.0419** (−1.99)
$TEST_{t-1}$				−0.0001 (−1.47)	−0.0007 (−1.15)
Industry	Yes	Yes	Yes	Yes	Yes
Prob > *F*	0.0000	0.0000	0.0000	0.0000	0.0000

*Significant at 10%, **Significant at 5%, ***Significant at 1%.

Table 6: Impact of COVID Data on the Different Industries

	Time Series Data Regressions									
	Bank	**Consumer Stapes**	**Energy**	**Industrial**	**Insurance**	**Investment and Financial Services**	**Real Estate**	**Services**	**Telecomm.**	**Transport.**
Confirmed$_{i,t-1}$	−0.0061*** (−6.05)	0.0012*** (4.31)	−0.0014*** (−2.91)	−0.0010*** (−2.81)	0.0001 (1.06)	−0.0003** (−1.86)	−0.0001*** (−3.34)	−0.0001*** (−3.12)	−0.0001 (−1.23)	−0.0004*** (−3.15)
Recovered$_{i,t-1}$	0.0003*** (4.49)	0.0007 (1.38)	0.0007** (2.23)	0.00126*** (5.06)	−0.0005*** (−3.09)	0.0042*** (3.13)	0.0001*** (5.99)	0.0006*** (2.53)	0.0001* (1.84)	0.0019*** (3.34)
Death$_{i,t-1}$	−0.0399*** (−5.26)	0.0276** (2.32)	−0.03779** (−2.54)	−0.0790*** (−2.90_	0.0212 (1.17)	−0.2246*** (−3.31)	−0.0024* (−1.81)	−0.0045 (1.13)	−0.0128 (−1.17)	−0.0275** (−1.93)
Test$_{i,t-1}$	−0.0001 (−1.41)	0.0007 (1.32)	−0.0002 (−1.06)	−0.0006 (−1.01)	−0.0001 (−1.04)	−0.0007 (−1.52)	−0.0005 (−1.13)	−0.0001 (−1.17)	0.0008 (1.25)	0.0001** (2.56)
Prob > *F*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

*Significant at 10%, **Significant at 5%, ***Significant at 1%.

this information is considered as a positive communication about the successful fight against the virus.

The findings of this study on the impact of newly infected cases and deaths are consistent with those of previous studies conducted in other international stock markets. While this study goes on to say that the COVID-19 pandemic has several impacts on company stock prices across industries, it also separates them into three categories: the negatively affected industries (banks, energy, industrial, investment and finance services, real estate, services, and transportation), the most resilient industries (insurance and telecommunication) and the positively affected industry (consumer staples). These results are not only important to the investors and portfolio managers but also policymakers and financial regulators. In reality, the findings of this study provide investors and portfolio managers with more clarifications on how to make the best investment selections and manage their portfolios more efficiently. In addition, these findings help the financial regulators in forecasting and allocating an important part of the budget to mitigate the negative impact of any potential pandemic on the stock prices in the future. These results are not only important to policymakers and financial regulators in developing the needed policies to improve the stock markets' resilience but also to investors and portfolio managers.

Further studies can be conducted by incorporating other variables such as the volatility of the stock markets to understand further the impact of the COVID-19 pandemic on the stock markets' uncertainty. In addition, future studies can consider a cross-country analysis about the impact of the COVID-19 pandemic on GCC or MENA stock markets by considering macroeconomic variables to have a clearer idea about the most affected and resilient financial markets. This finding would help the foreign investors in their financial decisions and understand further how they would invest more efficiently their funds during a pandemic crisis. This would help the government in developing the most appropriate financial and monetary policies to overcome any potential challenge in the future and improve the financial markets' resilience.

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