

The Impact of COVID-19 Pandemic on Malaysian Stock Performance

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Abstract

The COVID-19 pandemic occurs in year 2020 bring huge impact in worldwide. The global stock market was affected by the COVID-19 pandemic including Malaysia's stock market. The purpose of this study is to determine the impact of the COVID-19 pandemic on Malaysian stock performance. This study will employ the Kendall's tau-b correlation analysis to determine the impact of the COVID-19 pandemic. The data collected are daily data from 25th January 2020 to 31st December 2020. The dependent variable is the Kuala Lumpur Composite Index (KLCI) while the independent variables are built up from two categories which are the COVID-19 variables and the control variables. The COVID-19 variables include the confirmed cases, death cases and recovery cases. On the other hand, the control variables include the oil price, gold price, exchange rate, volatility index and NASDAQ composite index. The result showed the COVID-19 variables had significant impact on KLCI.

Keywords: Kendall's tau-b Correlation Analysis, COVID-19 Pandemic, Stock Performance, KLCI

Introduction

In December 2019, China discovered the first cases of novel coronavirus in Wuhan city. The outbreak of unknown respiratory disease that happen in Wuhan city was reported to World Health Organization (WHO) on 31 December 2019. The unknown novel coronavirus was named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) by WHO, and this novel coronavirus also acknowledge as coronavirus disease 2019 (COVID-19). In January 2020, WHO declared that the COVID-19 epidemic in Wuhan city was a global health emergency. On 23 January 2020, Wuhan city and cities nearby Wuhan imposed lockdown to terminate the spread of novel coronavirus. However, the COVID-19 has already spread globally. The growth of globalization increases the movement and exchange of human beings, goods and services, capital as well as technologies. This situation also increases the chances and speed of infectious diseases spread around the world. On 11 March 2020, WHO declared the outbreak of novel coronavirus 2019 had become a global pandemic. As until 9 March 2022, there as 448,313,293 positive cases of COVID-19 and 6,011,482 fatal cases due to COVID-19.

The COVID-19 epidemic is a global pandemic where Malaysia is not exempted from this global pandemic. On 25 January 2020, Malaysia detected that first COVID-19 positive cases from the

Chinese citizens who entered Malaysia through Singapore (Pung et al. 2020). The first local COVID-19 positive case in Malaysia was reported on 4 February 2020. In the history of infectious disease in Malaysia, the COVID-19 is not the first infectious disease that spread in Malaysia, but the COVID-19 is the first infectious disease that brings a massive impact on Malaysia especially Malaysian economy and Malaysian health care system. Before the COVID-19 outbreak in Malaysia, Malaysia faced the outbreak of Nipah virus in year 1999 and outbreak of severe acute respiratory syndrome (SARS) in year 2003. The Nipah virus outbreak reported 265 confirmed and 105 fatal cases while the SARS outbreak in reported five confirmed and two fatal cases (Hashim et al., 2021). However, as until 24 December 2021, the COVID-19 positive cases reached 2,735,241 cases and the fatal cases due to COVID-19 reached 31,290 cases.

In order to avoid the further transmission of novel coronavirus in Malaysia, Malaysian government implement lockdown policies. On 16 March 2020, Malaysian Prime Minister declared the Movement Control Order (MCO). The implementation of MCO was referred to the Prevention and Control of Infectious Diseases Act 1988 together with the Police Act 1967 (Bunyan, 2020). The borders of nation were closed, traveling abroad was banned for all Malaysian, and no tourists and foreigners were allowed to enter Malaysia, and all Malaysian citizens are not allowed to travel between states and districts. Besides, all government premises and private premises were not allowed except for the premises that provided essential services. The tourism industry is the industry that directly affected by the policies implement. There is massive loss in tourism industry. The international tourist arrivals in year 2020 decrease about 83.4% compared to year 2019 while the total expenditure in Malaysian tourism industry in year 2020 recorded RM 12.69 billion which decline about 85.3% as compared to year 2019.

After nearly two months of the MCO, Malaysian government replaced the MCO with the Conditional Movement Control Order (CMCO). During the CMCO, numerous economic activities and social activities were allowed to operate by following the government's conditionals and standard operating procedure (SOP) (Bernama, 2020). Then, after a month of the CMCO, the Malaysian prime minister declared that the CMCO was ended, and it will be replaced with the Recovery Movement Control Order (RMCO). Under the RMCO period, more restrictions were relaxed, and public will be allowed to continue their daily activities while complying with the SOP (Povera & Chan, 2020). Besides, the restriction for travel between states and districts was cancelled, and government encouraged domestic travel. The implementation of the RMCO was to increase the business activities in Malaysia which recover the economy in Malaysia.

During the COVID-19 pandemic and the policies implemented, the Malaysian stock market was affected. The unknown of economic situation and the fear of economic destruction due to the COVID-19 pandemic caused the Southeast Asian stock markets facing huge losses (Murugiah, 2020). In the mid-March 2020, the FMB Kuala Lumpur Composite Index (KLCI) sunk to its lowest points in 11 years. In June 2020, the rumours of windfall tax implementation on rubber glove counters further affected the Malaysian stock market, the FMB KLCI fell below 1500 points. The fear of global economic downturn and influenced of US presidential elections caused the FMB KLCI fell below 1500 points again in October 2020. The discovery of new variant of COVID-19 further influenced the Malaysian stock performance. Besides, the

decline of foreign direct investments in Malaysia also further worsens the stock market performance. The foreign direct investment to Malaysia decreased about 56% in year 2020 due to the COVID-19 pandemic (Sipalan, 2021).

The COVID-19 pandemic triggered unprecedented volatility in Malaysia's stock market, disrupting key industries and investor confidence. Hence, this study aims to examine how Malaysian major indices responded to the crisis. Understanding these dynamics is vital for policy makers seeking effective market safeguards, investors designing risk-management strategies, and academics exploring crisis impacts in emerging economies. By analysing daily market data with rigorous econometric methods, the research provides timely insights that support stronger financial resilience against future global shocks. The structure of this study organized as follows. The section two presents the literature review for related studies. Section three introduces the methodology. The results and discussions are illustrated in Section four. The last section, section five concludes this study.

Literature Review

Before the novel coronavirus pandemic happened in year 2019, the outbreak of severe acute respiratory syndrome (SARS) in the year 2002 affected the economics and stock market especially in China, Hong Kong and Taiwan. Chen, Jang and Kim (2007) examined the hotel stock performance in Taiwan during the SARS pandemic where they found that seven public listed hotel companies faced huge losses and decrease of stock price during the SARS pandemic. Chen (2011) further determined the response of Taiwanese hotel stock during crisis, and he figure out that the Taiwanese hotel stock performance not only impact by the SARS pandemic, but it also affected by the decline of hotel revenue due to the rise of discount rate. Other than hotel stock performance, Chen et al. (2009) studied the influence of SARS on Taiwanese industries. This study determined that SARS pandemic impacted negatively on tourism industry as well as wholesale and retail industry, but the SARS pandemic impacted positively in biotechnology industries. The study done by Chong et al. (2010) in China further strengthen the findings from Chen et al. (2009). Chong et al. performed a study on effect of SARS on Chinese pharmaceutical and tourism industry. The result obtained showed that tourism was impacted negatively while pharmaceutical industry was impact positively during the SARS pandemic.

Past studies showed that infectious disease able to affect the economic and stock performance. Hence, preliminary studies of impact of COVID pandemic on stock market have been conducted. The study conducted by Topcu and Gulal (2020), He, Liu, Wang and Yu (2020), Al-Awadhi, Al-Saifi, Al-Awadhi, and Alhammedi (2020), Anh & Gan (2020) as well as Ashraf (2020) found that the COVID-19 pandemic influenced the stock market negatively. The study done by Ahmed (2020) in Pakistan figured out that the COVID-19 recoveries have significant positive relationship to the stock market. The government intervention also affected the stock performance during the novel coronavirus pandemic. The study of Yang and Deng (2021) in OECD countries found evidence that government intervention showed positive impact on stock market, but government economic support policies was insignificant on stock market. However, Narayan, Phan and Liu (2020) determined that the economic stimulus package had positive impact on all G7 countries. Besides, Chia et al. (2020), Alam, Alam and Chavali (2020) as well as Narayan, Phan and Liu (2020) found evidence that lockdown brought positive influence on the stock performance.

There are also preliminary studies that have been conducted in Malaysia. Chia et al. (2020) conducted a study to determine the relationship among stock market returns and COVID-19 outbreak in Malaysia. Chia et al. (2020) found that there was a significant positive relationship between Movement Control Order (MCO) and stock returns, but daily new positive cases and fatal cases showed insignificant negative impact on the stock returns. Mustaffa et al. (2021) developed a study to identify and forecast the effect of the COVID-19 cases on Malaysian economic performance. This study figured out that unemployment rate, gross domestic product (GDP), consumer price index (CPI), foreign exchange rate, and the stock market index was significantly affected by the COVID-19 cases. Besides, this study forecasted that unemployment rate, GDP, foreign exchange rate, and the stock market index will increase while the CPI was estimated to decline. Singapore is one of the nearest countries with Malaysia and one of the top trading partners with Malaysia. Therefore, Jaapar et al. (2021) conduct a study that included Singapore's COVID-19 cases as variables. They found that Singapore's confirmed cases and fatal cases showed negative effect on the stock returns.

Lee, Jais and Chan (2020) and Saad, Mohamad and Haniff (2020) both studied the impact of the COVID-19 on Malaysian sectoral stock performance. Lee, Jais and Chan (2020) found that almost all sectors in Malaysian stock market were influenced by the COVID-19 pandemic. On the other hand, Saad, Mohamad and Haniff (2020) found that consumer, construction, energy, industrial product, property, technology, telecommunication together with transportation had significant negative relationship which similar to the findings from Lee, Jais and Chan (2020). Both of the studies did not include the COVID-19 recovery cases and government intervention as one of the variables. Hence, this provides an opportunity to further study the effect of COVID-19 recovery cases and government intervention such as lockdown.

Data and Methodology

This study examines that impact of the novel coronavirus pandemic on Malaysian stock return. The dependent variables are FTSE Bursa Malaysia KLCI Index. The independent variables selected in study are the COVID-19 confirmed cases, the COVID-19 death cases, the COVID-19 recovery cases, the oil price, gold price, exchange rate and volatility index. This study used the daily data from the period of 25th January 2025 to 31 December 2022. The data of KLCI, oil price, gold price, exchange rate and volatility index were collected from Investing.com. The data from the daily new COVID-19 confirmed cases, death cases and recovery cases was obtained from Ministry of Health Malaysia.

This study employs Kendall's tau-b correlation analysis to determine the interaction between those surveyed variables. The correlation analysis is basically following the assumption of linear relationship among the quantitative variables (Gogtay & Thatte, 2017). The correlation analysis measures the strength of the linear relationship between the quantitative factors. The value of coefficient indicates zero means there is no interaction among the two surveyed variables. The coefficient that greater than zero means there is a positive relationship among the variables while the coefficient that less than zero means there is a negative relationship between those surveyed variables. The coefficient of correlation analysis is among -1 to 1. The closer the value of correlation coefficient to 1, the stronger the positive relationship. Meanwhile, the closer the value of correlation to -1, the stronger the negative relationship.

Result and Analysis

Table 1

The Result of Correlation Analysis

	KLCI	KLFI	KLHC	KLTC	CC	RC	DC	OP	GP	EXC	VIX	NASDAQ
KLCI	1	-	-	-	-	-	-	-	-	-	-	-
KLFI	0.104** 0.000	1.000	-	-	-	-	-	-	-	-	-	-
	0.466** 0.000	-0.317** 0.000	1.000	-	-	-	-	-	-	-	-	-
KLHC	0.469** 0.000	0.013 -0.513	0.311** 0.000	1.000	-	-	-	-	-	-	-	-
	0.160** 0.000	0.293** 0.000	0.039 -0.059	0.237** 0.000	1.000	-	-	-	-	-	-	-
KLTC	0.170** 0.000	0.347** 0.000	0.010 -0.609	0.250** 0.000	0.816** 0.000	1.000	-	-	-	-	-	-
	0.166** 0.000	0.221** 0.000	0.108** 0.000	0.324** 0.000	0.744** 0.000	0.731** 0.000	1.000	-	-	-	-	-
CC	-0.056** 0.000	0.710** 0.000	-0.370** 0.000	-0.091** 0.000	0.414** 0.000	0.429** 0.000	0.304** 0.000	1.000	-	-	-	-
	-0.026 -0.204	0.288** 0.000	0.029 -0.151	-0.324** 0.000	0.065** -0.002	0.079** 0.000	-0.022 -0.297	0.321** 0.000	1.000	-	-	-
RC	-0.506** 0.000	0.211** 0.000	-0.557** 0.000	-0.456** 0.000	-0.031 -0.125	-0.010 -0.609	-0.103** 0.000	0.255** 0.000	0.236** 0.000	1.000	-	-
	-0.304** 0.000	-0.118** 0.000	-0.198** 0.000	-0.438** 0.000	-0.307 0.000	-0.304** 0.000	-0.382** 0.000	-0.092** 0.000	0.143** 0.000	0.261** 0.000	1.000	-
DC	0.236** 0.000	0.288** 0.000	0.136** 0.000	0.338** 0.000	0.647 0.000	0.652** 0.000	0.668** 0.000	0.356** 0.000	-0.011 -0.601	-0.128** 0.000	-0.481** 0.000	1.000

The result of correlation analysis show that the COVID-19 variables and NASDAQ composite index positively correlated with the KLCI while the oil price, exchange rate as well as the volatility index negatively correlated with the KLCI. This indicates that the increase of COVID-19 related cases and NASDAQ composite index lead to the higher KLCI. On the other hand, the rising of oil price exchange rate and volatility index caused the declined of the KLCI. Although the COVID-19 variables are However, the correlation relationship between the COVID-19 variables and the KLCI are weak compared to other variables since the coefficient are nearest to zero. The exchange rate showed the strongest negative correlation relationship with the KLCI. Other than that, the COVID-19 variables illustrated a strong positive correlation relationship between each other. These COVID-19 variable also strongly correlated with the NASDAQ composite index.

Conclusion

The objective of this study was to determine the impact of the COVID-19 on the performance of Malaysian stock market. The result of this study found that the Malaysian stock performance was significantly impact by the COVID-19 variables, but the impact was weak. On the other hand, most of the control variables showed significant negative correlate with the KLCI except for the gold price and the NASDAQ composite index. Further studies can be conducted by determine the impact of the COVID-19 on sectoral stock performance.

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