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## **Effect of the Covid-19 Pandemic on Stock Market Return With Macro Indicators as Control Variables in Indonesia and Malaysia**

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### **Abstract**

This research aims to examine the positive COVID-19 variable, the COVID-19 death variable, the COVID-19 vaccination variable, and the currency exchange rate variable as a control variable for stock market returns in Indonesia and Malaysia. The population in the test is a combination of the main indexes of the Indonesian and Malaysian stock exchanges. Sample selection using a purposive sampling method. The analytical tool used in this study is multiple linear regression analysis with 104 observational data for the period 2021-2022. The test results show that the positive COVID-19 confirmation variable has no significant effect, the COVID-19 death confirmation variable has a significant positive effect, and the COVID-19 vaccination variable has no significant effect on stock market returns

**Keywords:** Positive Confirmation of COVID-19, Confirmation of COVID-19 Death, COVID-19 Vaccination, Exchange Rate, Stock Market Return

### **INTRODUCTION**

The economic crisis is something that is feared by all countries in the world. An economic crisis is a condition in which the economy in a country experiences a drastic decline. In general, countries facing this situation will experience a decline in GDP (gross domestic product), falling property and stock prices, as well as price fluctuations due to inflation. This incident was very scary. Because, there will be many parties who will be harmed if there is an economic crisis in a country including Indonesia where Indonesia has historically experienced three economic crises, namely the monetary crisis in 1998 and 2008 and the global crisis in 2020 due to the spread of Coronavirus Disease 2019 (COVID-19). Coronavirus Disease 2019

(COVID-19) first appeared in Wuhan, China, at the end of 2019, before spreading around the world. COVID-19 also has an impact on the Asia-Pacific region, including countries in the Asian region where the majority of the population is Muslim, including countries in Southeast Asia, namely Indonesia and Malaysia. Indonesia has a Muslim population of 229 million people (87.2%) of a total population of 273,879,750 as of December June 2022, and Malaysia has a Muslim population of 16,318,355 people (61.3%) of a total population of the 32,750,000. people as of June 2022, which illustrates that the population is Indonesia and Malaysia is the country with the largest Muslim majority population in Southeast Asia. The first detection of the positive COVID-19 virus was carried out on January 25, 2020, in Malaysia and on March 2, 2020 in Indonesia.

Various methods were taken by the government and the general public to combat the spread of the epidemic, including the closure of a large number of schools and the formation of religious organizations, the lockdown of several countries, and so on, to prevent the spread of the economic crisis. Preventive policies are effective to reduce newly confirmed cases in countries that implement the measures with countries that do not implement preventive policies(Alfano and Ercolano 2020)and their appropriateness given the economic and social cost they entail. To the best of our knowledge, no existing contribution to the literature has attempted to gauge the effectiveness of lockdown measures over time in a longitudinal cross-country perspective. Objectives: This paper aims to fill the gap in the literature by assessing, at an international level, the effect of lockdown measures (or the lack of such measuresas well as being able to provide positive economic growth for a country by using a mix of international and domestic policies(Conefrey et al. 2021).The capital market serves as a barometer of a country's economic activity, if the activity and volume in the capital market increase. The results clearly show that the COVID-19 outbreak has resulted in huge losses and during the crisis, period showed increased volatility for all strategic indexes suggesting that the pandemic is having a long-lasting effect and will take time to fade on the Bombay Stock Exchange, India(Gupta, Das, and Gupta 2021)the study has applied GARCH.

The impact of the COVID-19 pandemic has also recorded the growth of daily positive, death, and vaccinations confirmations as evidenced by the daily positive, death, and vaccinations confirmation reports announced by each government to know the number of populations in the country who are infected with the COVID-19 virus. Positive Confirmation Variables have a negative hurt turns oil exploration and production companies, as well as the daily growth in the total number of Confirmed ones caused by COVID-19, has a significant negative effect on stock market returns and liquidity of the financial services sector in Vietnam (Chen, Hu, and Chang 2021;



Nguyen, Hai, and Nguyen 2021). Furthermore, The death confirmation variable has a negative impact data from 64 countries where the stock market responds negatively to the increase in COVID-19(Ashraf, 2020) and The variable number of COVID-19 vaccinations has a strong and significant positive effect on the return of the S&P 500 in most business cycle frequencies with a relationship in-phase (Khalfaoui et al. 2021)infection rate (INFR.

In this study, using weekly COVID-19 confirmation data accumulation indicators in countries in the Southeast Asian region where the countries that will be selected are countries that have stock exchanges in that country with six countries that will become objects, namely: Indonesia and Malaysia where positive confirmation data will be taken from the Ministry of Health or the authorities responsible for handling the COVID-19 pandemic situation. Second, using weekly closing price data for Stock Market Returns of all issuers in all of which the data to be taken is weekly closing accumulation data from a list of countries that have stock exchanges in that country with six countries that will become objects, namely: Indonesia, and Malaysia. Finally, daily vaccination data from the list of countries with two countries that will be objects, namely: Indonesia, and Malaysia were the last country to confirm the first vaccination will be used as the first database for the beginning of the research until early of march 2022 and the data will be processed using the goodness of fit model assessment method, hypothesis testing, and classical assumption testing.

## LITERATURE REVIEW

### Signaling Theory

Signaling theory suggests the importance of information released by the market in investing for investors. In simple terms, signals are activities taken by market activities or actions or actions that provide clues to investors about how the conditions or conditions in the market (Eugeune F and Joel F 2010). Signals can be used as a reference taken by investors to provide instructions for how investors view the prospectus or market conditions in a country where the better the market conditions, the stronger the positive signal of market activity in a country, the and stronger investor confidence to invest in the country. the country. However, on the other hand, the lower the signal of market conditions, the weaker the positive signal of market activity in a country, and the more doubtful investors will h of confidence to invest in that country.

## **Adaptive Market Hypothesis**

In particular, the Adaptive Market is derived from evolutionary principles. Prices reflect as much information as is dictated by a combination of environmental conditions and the number and nature of “species” in the economy or, to use a more precise biological term, ecology. (Lo Andrew 2004). AMH is based on the following basic principles:

1. People are motivated by their self-interest
2. They naturally make mistakes
3. They adapt and learn from these mistakes

## **Stock Market Return**

What is meant by “return” is the result of a day’s investment activity which is intended to increase the amount of money invested on the previous day while reducing the amount of money invested on the previous day. This is done to reduce the amount of money invested in the previous day’s investing activity while increasing the amount of money invested in investing activity the previous day. Returns are one of the factors that motivate investors to invest, and also serve as a deterrent for investors who are concerned about the risks associated with their investments (Tandelilin 2001). When an investor makes a successful investment in the stock market, the term “Stock Market returns” is used to describe the amount of money they get in return for their investment. return the Stock Market can be found in every stock market in the world.

## **Exchange Rate**

Exchange Rates (exchange rate) is the comparison of the value between two different currencies with the same value. A currency swap is the currency exchange rate of one unit of foreign currency for one unit of domestic currency or the currency exchange rate off the domestic currency relative to foreign currencies in the open market. Currency exchange rates are also known as “currency exchange rates”(Suseno 2004) Consequently, the local reference rate is the comparison of the reference rate for the currency of one country to the reference rate for the currency of another country. In addition, the reference rate is a check of the validity of any request or warning regarding local currency or foreign currency based on the reference rate for one trading day.



## Method

In this study, the dependent variable is the stock market return. Based on the independent and dependent variables, the following equation can be arranged (Ghozali 2021):

### REGRESSION MODEL 1:

$$Y_1 = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

This study uses two additional control variables, namely Currency exchange rate ( $X_4$ ) as a comparison, so the following equation can be arranged:

### REGRESSION MODEL 2:

$$Y_1 = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Information:

- Y1 = Stock Market Return
- a = Constant
- b = Regression coefficient
- X1 = Positive Confirmation of COVID-19
- X2 = Covid-19 Death Confirmation
- X3 = Daily Vaccination for COVID-19
- X4 = Currency Exchange Rate
- e = standard error

## Descriptive Statistics

Analytical methods were used to provide data in a standardized format during this study, while statistical methods were used to provide data in a randomized format during this study. The variance, maximum, minimum, magnitude (range of values), and kurtosis (shape of distribution) are all used to determine the skewness of the data (slope of distribution). It can be used to analyze large amounts of data, extract information from that data, and then present that information in the desired way for dissemination. This study discusses numerical methods that can be used to carry out the existing tasks (Ghozali 2021).

## **Classical Assumption Test**

The data that has been collected during this research will be reviewed more thoroughly before hypothesis testing is carried out to eliminate erroneous assumptions. These tests are carried out, among others:

### **1. Normality Test**

A normality test is a method to determine whether the residual distribution is normal or not. A good regression model has a normal residual distribution. This means that instead of looking at each variable, we are looking at the residual value of each variable. There should be normality in the residual values rather than in each individual the regression model. Normality test can be done by histogram test, P Plot normal test, Chi-Square test, Skewness and Kurtosis or Kolmogorov Smirnov test. The statistical test that can be used to test the normality of the residuals is the Kolmogorov-Smirnov (KS) nonparametric statistical test. If the Kolmogorov-Smirnov results show a significant value above ( $> 0.05$ ), then the residual data is normally distributed. Meanwhile, if the results of Kolmogorov Smirnov show a significant value ( $<0,05$ ) (Ghozali 2021).

### **2. Multicollinearity Test**

The multicollinearity test is a method used to determine whether or not there is a relationship between two variables in a linear regression model, known as the Multicollinearity Test. A good regression model will include variables that are not correlated with each other. Multicollinearity methods such as Variance Inflation Factor (VIF) and Variable Acceptance Capacity (VAC) are often used to evaluate multicollinearity (Ghozali 2021).

### **3. Heteroscedasticity Test**

The heteroscedasticity test aims to determine whether the variance of a certain residual is correlated with the variance of other residuals in a regression model (Ghozali 2021).



### **Autocorrelation Test**

This test was carried out to determine whether or not there is a correlation between users' t-period caloric intake and their t-1-period caloric intake in a given regression line model (Ghozali 2021). As a result of observations that take place over a certain period of time, autocorrelation is formed. This mix is the result of a lack of consistency from one observation to the next. Using a model that is free of autocorrelation is a great way to retrace someone's steps. To perform autocorrelation, the Durbin-Watson (DW) test can be used, which gives results based on the Durbin-Watson (DW) coefficient or the Run Test.

### **Hypothesis Test**

The analytical multiple linear regression method was used to determine the effect of the COVID-19 pandemic on the controlling variables of Currency Exchange Rates and Interest Rates on Stock Market Returns in Indonesia and Malaysia (H1 to H3). As part of this research, the hypotheses used are F-statistics, t-statistics, and the Determinant Coefficient (F-statistics) (R2 Test).

#### **1. F Statistic Test**

F statistical analysis, in the form of simple questions, determines whether all variables included in a particular model have the same or different effects on the dependent and independent variables (Ghozali 2021). To test this hypothesis, we used the F statistic in conjunction with the following criteria to determine whether the experiment was completed or not:

#### **2. T-Statistical Test**

Statistical t-test, based on the data presented, shows that a large number of independent variables have unique consequences when the dependent variable is included (Ghozali 2021). The test was launched at a statistical significance level of 0.05 (or 5 percent).

#### **3. Coefficient of Determination Test (R2)**

Aiming to improve the model's ability to find the best fit for a variable (goodness of fit) by determining the coefficient of determination, we will

see how far we can go in terms of model capability ( $R^2$ ). Consequently, in this context, the coefficient of determination ( $R^2$ ) is used to identify and evaluate the dependent variable by combining many of the most powerful statistical models available (Ghozali 2021).

## Result and Discussion

### Descriptive Statistics

In the previous descriptive statistical test, descriptive statistical tests cannot be used because during the normality test there have been deviations and the data is not normally distributed, then the data is eliminated by 3 outliers for non-variable control data with a sample research value of 101 data samples and 2 outliers for data with control variables sample research value of 102 data with :

**Table 1.**  
**Descriptive Statistics (Non-Control Variable)**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Market Return(Y)	101	-.41267	.70174	.0155032	.18866885
Positive(X1)	101	-.64654	3.63340	.0918448	.51628634
Death(X2)	101	-.55882	2.31148	.0813571	.47397421
Vaccine(X3)	101	-.39978	56.77361	.6912734	5.64372207
Valid N (listwise)	101				

Source: SPSS 26 Data Processing 2022

**Table 2.**  
**Descriptive Statistics (Control Variable)**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Market Return(Y)	102	-.60007	1.43405	.0333498	.24485571
Positive(X1)	102	-.62395	3.63340	.1376227	.59636097
Death(X2)	102	-.55882	2.31148	.0967896	.48508958
Vaccine(X3)	102	-.57792	56.77361	.7035215	5.61658920
Exchange Rate (X4)	102	-.60460	1.52903	.0330019	.24871037
Valid N (listwise)	102				

Source: SPSS 26 Data Processing 2022





1. Table 1 and Table 2 show that the number of samples (N) studied was 101 samples for the non-control variable test and 102 samples for the control variable test for the research object in Indonesia and Malaysia from 2021 to 2022. The average positive value for the non-variable control test with research objects in Indonesia and Malaysia during the years 2021-2022 is 0.918448 and 0.1376227 for the positive average value test with the control variable. The minimum Positive value for the non-variable control test with research objects in Indonesia and Malaysia during the years 2021-2022 is -0.64654 and -0.62395 for the Positive minimum value test with the control variable. The maximum Positive value for the non-variable control test with research objects in Indonesia and Malaysia during the years 2021-2022 is 3.63340 and 3.63340 for the Positive maximum value test with the control variable. The positive mean value which is smaller is 0.0918448 than the standard deviation value of 0.
2. The average value of death for the non-variable control test with research objects in Indonesia and Malaysia during the years 2021-2022 is 0.0813571 and 0.0967896 for the test of the average value of death with the control variable. The minimum Death value for non-variable control tests with research objects in Indonesia and Malaysia during 2021-2022 is -0.55882 and -0.55882 to test the minimum value of Death with the control variable. The maximum value of Death for the non-variable control test with research objects in Indonesia and Malaysia during the years 2021-2022 is 2.31148 and 2.31148 for the test of the maximum Death value with the control variable. The smaller Death average value is 0.0813571 from the standard deviation value of 0.
3. The Vaccine Average Value for the non-variable control test with research objects in Indonesia and Malaysia during the years 2021-2022 is 0.6912734 and 0.7035215 for the Vaccine average value test with the control variable. The minimum value of Vaccine for non-variable control tests with research objects in Indonesia and Malaysia during 2021-2022 is -0.39978 and -0.57792 for the Vaccine minimum value test with the control variable. The maximum value of Vaccine for the non-variable control test with research objects in Indonesia and Malaysia during the years 2021-2022 is 56,77361 and 56,77361 for the maximum value test of Vaccine with the control variable. The smaller Vaccine mean value is 0.6912734 from the standard deviation value of 0.

## Normality Test

**Table 3.**  
**Normality Test**

<b>One-Sample Kolmogorov-Smirnov Test (Non-Control Variable)</b>		
		Unstandardized Residual
N		101
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.13067235
Most Extreme Differences	Absolute	.079
	Positive	.044
	Negative	-.079
Test Statistic		.079
Asymp. Sig. (2-tailed)		.122 <sup>c</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
<b>One-Sample Kolmogorov-Smirnov Test (Control Variable)</b>		
		Unstandardized Residual
N		102
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.01614934
Most Extreme Differences	Absolute	.074
	Positive	.074
	Negative	-.056
Test Statistic		.074
Asymp. Sig. (2-tailed)		.193 <sup>c</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: SPSS 26 Data Processing 2022



Based on the left table 3 (non-control) and the right table 4 (control) statistical test of the non-control variable KS normality test with a value of N used as many as 101 data and the number of data outliers as many as 3 data from 104 data in table 4.7 obtained a value of 0.079 with a significance probability of 0.122 with a value of N used as many as 102 data and the number of data outliers as much as 2 data from 104 data in table 4.8 obtained a value of 0.074 with a significance probability of 0.193, both explanation before the value is above the standard = 0.05 and interprets that the distribution is normal and it is assumed that the processed data has met normality and interprets that the distribution is normal and it is assumed that the processed data has met normality, then the research can proceed to the next T-Test.

## Classical Assumption Test

### 1. Multicollinearity Test

In table 4 and table 5 the value of *Tolerance* There is no independent variables that had a value of less than 0.10 (100%) and the VIF value showed the same thing where there were no independent variables, both Positive, Death, and Vaccine variables which had a value of more than 10. So, it can be concluded that there is no multicollinearity by testing without control variables. So, it can be concluded that there is no multicollinearity between variables either by testing without control variables or by testing using control variables in the regression model.

**Table 4.**  
**Multicollinearity Test (Non-Control Variable)**

Model	Coefficients <sup>a</sup>				Sig.	Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t		Tolerance	VIF
	B	Std. Error	Beta				
(Constant)	-.015	.014		-1.101	.274		
1 Positive(X1)	.196	.031	.536	6.399	.000	.705	1.419
Death(X2)	.049	.033	.124	1.477	.143	.705	1.418
Vaccine(X3)	.012	.002	.365	5.174	.000	.993	1.007

a. Dependent Variable: Market Return(Y)

Source: SPSS 26 Data Processing 2022



**Table 5.**  
**Multicollinearity Test (Control Variable)**

Model	Coefficients <sup>a</sup>					Sig.	Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients		t			
	B	Std. Error	Beta				VIF	
1	(Constant)	.000	.002		-.172	.864		
	Positive(X1)	.005	.004	.012	1.386	.169	.567	1.764
	Death(X2)	.003	.004	.005	.605	.546	.662	1.512
	Vaccine(X3)	.001	.000	.027	3.838	.000	.882	1.134
	Exchange Rate (X4)	.965	.009	.981	112.494	.000	.590	1.695

a. Dependent Variable: Market Return(Y)

Source: SPSS 26 Data Processing 2022

### Heteroscedasticity Test

Table 6 shows the analysis obtained on the Positive, Death, and Vaccine variables and the lag is carried out showing a significance level above 0.05 (5%). Meanwhile, Table 7 shows the analysis obtained on the variables showing a significance level above 0.05% (5%) so it can be concluded that the 2 regression models are free from heteroscedasticity symptoms,

**Table 6.**  
**Heteroscedasticity Test (Non-Control Variable)**

Model	Coefficients <sup>a</sup>					Sig.	Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients		t			
	B	Std. Error	Beta				VIF	
1	(Constant)	.004	.013		.302	.763		
	Positive	.001	.030	.003	.023	.982	.707	1.415
	Death	-.008	.033	-.029	-.236	.814	.707	1.415
	Vaccine	.000	.002	-.005	-.053	.958	.993	1.007

a. Dependent Variable: ABS\_RES

Source: SPSS 26 Data Processing 2022



**Table 7.**  
**Heteroscedasticity Test (Control Variable)**

Model	B	Coefficients <sup>a</sup>			Sig.	Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients			
		Std. Error	Beta	t			
1	(Constant)	.001	.002		.518	.606	
	Positive(X1)	-.003	.004	-.128	-.965	.337	.569 1.758
	Death(X2)	-.001	.004	-.043	-.351	.726	.661 1.512
	Vaccine(X3)	7.696E-5	.000	.027	.252	.801	.882 1.134
	Exchange Rate (X4)	-.005	.008	-.073	-.565	.573	.592 1.690

a. Dependent Variable: ABS\_RES

Source: SPSS 26 Data Processing 2022

### Autocorrelation Test

The Run Test on table 8 (non-control) value shows an output of 0.01777 (17.8%) with a probability of 0.618 (61.8%) which exceeds the standard of 0.05% (5%) so it can be concluded that there is no autocorrelation between residual values. The Run Test on table 9 (control) value shows an output of -0.00068 (0%) with a probability of 0.073 (7.3%) which exceeds the standard of 0.05% (5%) so it can be concluded that there is no autocorrelation between the residual value.

**Table 8.**  
**Normality Test (Non-Control Variable)**

Runs Test	
	Unstandardized Residual
Test Value <sup>a</sup>	.01777
Cases < Test Value	50
Cases >= Test Value	51
Total Cases	101
Number of Runs	49
Z	-.499
Asymp. Sig. (2-tailed)	.618
a. Median	

Source: SPSS 26 Data Processing 2022

**Table 9.**  
**Normality Test (Control Variable)**

<b>Runs Test (Control Variable)</b>	
	Unstandardized Residual
Test Value <sup>a</sup>	-.00068
Cases < Test Value	51
Cases >= Test Value	51
Total Cases	102
Number of Runs	43
Z	-1.791
Asymp. Sig. (2-tailed)	.073
a. Median	

Source: SPSS 26 Data Processing 2022

## Model Testing

### 1. F-Test

Table 10 and 11 show the ANOVA test with calculated F of 35,070 and 5550,462 with a probability of 0.000 respectively. With a probability much smaller than 0.05 (5%) it can be concluded that the regression model can predict stock market returns in other words that one variable or all independent and control variables can affect stock market returns.

**Table 10.**  
**F-Test (Non-Control Variable)**

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.852	3	.617	35.070	.000 <sup>b</sup>
	Residual	1.708	97	.018		
	Total	3.560	100			

a. Dependent Variable: Market Return(Y)

b. Predictors: (Constant), Vaccine(X3), Death(X2), Positive(X1)

Source: SPSS 26 Data Processing 2022



**Table 11.**  
**F-Test (Control Variable)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.029	4	1.507	5550.462	.000 <sup>b</sup>
	Residual	.026	97	.000		
	Total	6.055	101			

a. Dependent Variable: Market Return(Y)

b. Predictors: (Constant), Exchange Rate (X4), Vaccine(X3), Death(X2), Positive(X1)

Source: SPSS 26 Data Processing 2022

## 2. T-Test

Based on table 12 and table 13 the regression non-control variable and the regression control variable equation used is:

**MarketReturn :**

**-0.015 + 0.196 Positive + 0.049 Death + 0.012 Vaccine + e**

**MarketReturn :**

**0.000+ 0.005 Positive + 0.003 Death + 0.001 Vaccine + 0.965 Currency exchange rate+ e**

**Table 12.**  
**T-Test (Non-Control Variable)**

Coefficients <sup>a</sup>						
Model	B	Unstandardized Coefficients		Standardized Coefficients		Sig.
		Std. Error	Beta		t	
1	(Constant)	-.015	.014		-1.101	.274
	Positive(X1)	.196	.031	.536	6.399	.000
	Death(X2)	.049	.033	.124	1.477	.143
	Vaccine(X3)	.012	.002	.365	5.174	.000

a. Dependent Variable: Market Return(Y)

Source: SPSS 26 Data Processing 2022



**Table 13.**  
**T-Test (Control Variable)**

Model	Coefficients <sup>a</sup>				
	B	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		Std. Error	Beta		
1	(Constant)	.000	.002	-.172	.864
	Positive(X1)	.005	.004	.012	.169
	Death(X2)	.003	.004	.005	.546
	Vaccine(X3)	.001	.000	.027	.000
	Exchange Rate (X4)	.965	.009	.981	.000

a. Dependent Variable: Market Return(Y)

Source: SPSS 26 Data Processing 2022

### 3. R2 Test

In table 14 the adjusted R square value is 0.505 and has an explanation that 52% of the variation in stock market returns can be explained through independent variables and the remaining 48% is influenced by other variables outside the research model and In table 15 the adjusted R square value is 0.995 and has an explanation that 99.6% of the variation in stock market returns can be explained through independent variables and the remaining 0.04% is influenced by other variables outside the research model.

**Table 14.**  
**R2 Test (Non-Control Variable)**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.721 <sup>a</sup>	.520	.505	.132677673076516

a. Predictors: (Constant), Vaccine(X3), Death(X2), Positive(X1)

b. Dependent Variable: Market Return(Y)

Source: SPSS 26 Data Processing 2022





Table 15.

**R2 Test (Control Variable)**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.998 <sup>a</sup>	.996	.995	.016478956454750

a. Predictors: (Constant), Exchange Rate (X4), Vaccine(X3), Death(X2), Positive(X1)  
b. Dependent Variable: Market Return(Y)

Source: SPSS 26 Data Processing 2022

**CONCLUSION**

Based on hypothesis testing, the daily positive case variable is not significant to stock market returns. The positive variable is a variable to measure the number of people in a region or country infected with the virus during the COVID-19 pandemic. In its interpretation, investors cannot use positive confirmation indicators and do not see signals of potential returns and also will not invest because the stock markets of Indonesia and Malaysia are not effective and efficient in carrying out business and trading activities and because of the high volatility of disease outbreaks, growth of positive case confirmations. during the years 2021-2022. Regarding the problem of disease, disease outbreaks have been regulated as the word of Allah SWT in the Qur'an Surah Yunus verse 57 is as follows:

يَا أَيُّهَا النَّاسُ قَدْ جَاءَتْكُمْ مَوْعِظَةٌ مِّن رَّبِّكُمْ وَشِفَاءٌ لِّمَا فِي الصُّدُورِ وَهُدًى وَرَحْمَةٌ لِّلْمُؤْمِنِينَ

Meaning: O mankind, there has to come to you instruction from your Lord and healing for what is in the breasts and guidance and mercy for the believers. The daily mortality case variable is a variable to measure the number of people in a region or country who died from the virus during the COVID-19 pandemic period. In the interpretation of the mortality variable in accordance with the signaling theory caused Confirmation information on COVID-19 deaths is unpredictable and does not yet have a clear pattern of market information so that it gives a positive signal to investors with the perception that the public is starting to be aware of the COVID-19 pandemic outbreak and are starting to follow government recommendations and

follow the applicable protocol rules so that it triggers them to invest. in a country. With the interpretation that the increasing confirmation of COVID-19 deaths raises investor confidence to invest due to the emergence of government policies to anticipate the increase in confirmation of COVID-19 deaths including in this case the increased volatility of the stock market due to the implementation of COVID-19 will result in investors being able to make predictions or forecasts about their future investment returns. Regarding the issue of death, death has been regulated as the word of Allah SWT in the Al-Quran Surah Yasin verse 12 is as follows:

إِنَّا نَحْنُ نُحْيِي الْمَوْتَىٰ وَنَكْتُبُ مَا قَدَّمُوا وَآثَارَهُمْ ۚ وَكُلَّ شَيْءٍ أَحْصَيْنَاهُ فِي إِمَامٍ مُّبِينٍ

Meaning: Indeed, we are the ones who bring the dead to life, and We are the ones who record what they have done and the traces they have left. And everything We collect in a clear Book (Lauh Mahfuzh). Based on hypothesis testing, the daily vaccination variable is not significant to stock market returns. The vaccination variable is a variable to measure the number of people in a region or country who are vaccinated during the COVID-19 pandemic period. This is not in accordance with the adaptive market hypothesis which states that due to the changing environment of market evolution, heuristics that were previously adaptive can become maladaptive. This is inseparable from the policy mix of the Indonesian and Malaysian governments in providing vaccines for their citizens where the total availability of vaccinations is still not given to the public and the stigma of the community is diverse with vaccinations, giving rise to the perception that vaccinations cannot meet the expectations of investors to want to invest in Indonesia and Malaysia in the period 2021-2022 and also due to the high volatility of positive case confirmation growth during the period 2021-2022. Based on the results of the tests that have been carried out, there are the following limitations:

1. Sampling of data was taken based on weekly accumulated data.
2. Overall it ignores the fundamental situation of all members who join the main indexes on the Indonesian and Malaysian stock exchanges as well as the domestic and foreign political situation.
3. There are no variables that measure the level of strictness policies during the pandemic



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