THE INFLUENCE OF THE SOUTHEAST ASIAN REGIONAL STOCK EXCHANGE ON THE INDONESIA STOCK EXCHANGE FOR THE PERIOD 2017-2018

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Abstract

This study aims to determine the effect of the South East Asia's major stock exchanges on the Indonesia Stock Exchange from 2017 to 2018. The main stock exchanges used as independent variables are ^KLCI (Malaysia), ^STI (Singapore), ^SET (Thailand), and ^PSEI (Phillipines). The dependent variable used is ^JKSE (Jakarta Stock Exchange, Indonesia). There are 478 data sets that can be processed, which have been synchronized. By using multiple regression analysis, the results obtained: ^KLCI has a negative and insignificant effect on ^JKSE, ^STI has a negative and insignificant effect on ^JKSE, ^SET has a positive and significant effect on ^JKSE, and ^KLCI, ^STI, ^SET, ^PSEI simultaneously has a significant effect on ^JKSE in the period 2017 to 2018.

Keywords: Dependency Theory, Globalization, Market Integration, Developed Market, Emerging Market

1.   INTRODUCTION

Globalization has steered the world in a new direction. New financial market structures and practices are increasingly taking shape due to financial liberalization, the removal of traditional regulatory barriers, and technological advances. Currently, the direction is towards a globally integrated financial world.

Emerging market stock markets attract the attention of global fund managers because they offer opportunities for portfolio diversification. Anyone managing a financial portfolio needs to consider the opportunities and risks of diversifying portfolios internationally.

Over the past few decades, globalization has been the most visible feature of financial markets. Financial markets appear to be increasingly integrated globally. Over the past few decades, research on the integration of the world's stock markets has attracted the attention of many academics.

Dependency theory is that resources flow from poor and underdeveloped countries to rich countries, enriching rich countries even more by impoverishing emerging countries. The central assumption of dependency theory is that emerging countries are getting poorer and rich countries are getting richer by integrating emerging countries into the world system. The integration covers almost all fields, including finance, banking, and the stock market.

Research on the relationship between developed and emerging markets is interesting for three reasons: the emerging-market stock market is considered promising for portfolio diversification internationally, these emerging market stock markets tend to be vulnerable to fluctuations in regional and international equity markets, investors can

benefit from investing in developed and emerging market stock markets.

The stock market in Indonesia is included in the emerging market stock market. The stock market in Indonesia statistically shows that around 70% of investors are foreign investors. In addition, many foreign securities and wealth management companies have opened branch offices in Indonesia. This fact shows that the Indonesian stock market is quite attractive to foreign investors. Thus, it can be assumed that the Indonesian stock market is an integrated part of the global stock market. Because it is part of the global stock market, the Indonesian stock market is thought to be influenced by movements in the global stock market, especially the stock market in developed countries.

This study aims to examine the major stock markets of Southeast Asia against the Indonesian stock market. A capital market is a place where capital is traded between parties who have excess capital (investors) and people who need capital (issuers) to develop companies or investments. In the Capital Market Law no. 8 of 1995, the capital market is defined as activities related to the public offering and trading of securities, public companies related to the securities they issue, and institutions and professions related to securities.

There are six parties in this capital market, namely:

1. Issuers, namely business entities (limited companies), issue shares to increase capital or issue bonds to obtain debt from investors on the Stock Exchange.
2. Emissions Intermediary, which includes three parties, namely: (a) Underwriter, an intermediary company that guarantees the sale of emissions, in the sense that if the shares or bonds have not been sold, the underwriter is obliged to buy so that the funds needed by the issuer are met according to the plan, (b) Public Accountant, namely the party whose function is to examine the issuer's financial condition and provide an opinion on whether the issuer's financial statements are fair, (c) Appraisal Company, a company whose function is to assess the issuer, whether the issuer's asset value is fair or not.
3. Capital Market Implementing Agency, namely the agency that regulates and supervises the operation of the capital market, including removing issuers or delisting from the stock exchange floor and providing sanctions to parties who violate capital market regulations. In Indonesia, the Capital Market Implementing Body is the OJK (Financial Services Authority), a government agency under the Minister of Finance.
4. Stock Exchange, where capital market securities trading activities are held, established by a business entity in Indonesia, is referred to as the Indonesia Stock Exchange.
5. Securities Trading Intermediary, intermediaries, or brokers/brokers through which only securities in the stock exchange may be transacted. An intermediary is a securities company/broker that buys and sells securities for the benefit of others by obtaining a fee/commission.
6. Investors are parties who invest their capital in the form of securities on the stock exchange by buying or reselling the securities.

2. LITERATURE REVIEW AND HYPOTHESES

In the capital market, trading securities (stocks and bonds) occurs through the stages of the primary market and then the secondary market. The primary market is the initial sale of shares and bonds by issuers to investors, which occurs at the time of the Initial Public Offering or initial public offering. These two parties who need each other do not meet in the exchange but through an intermediary. The issuer obtains the funds needed to develop its business from the sale of shares and securities in the primary market.

While the secondary market is a market that occurs immediately or after the primary market ends, after investors purchase stocks and bonds from issuers at the time of the IPO, these investors sell the shares and bonds back to other investors, both intending to take profits from rising prices (capital gains) or to avoid losses (capital losses). Trading on the secondary market regularly happens on the stock exchange every trading day.

This stock market trading takes place all over the world. Each stock market around the world has its own trading rules. Globalization causes economic, social, and political interrelationships between one country and another. Economic globalization has also led to linkages between stock exchanges around the world. Stock exchanges worldwide can be grouped into two major groups, stock exchanges in developed countries and stock exchanges in developing countries or emerging markets. Developed markets, for example, are the stock exchanges of the United States, Japan, Germany, Britain, France, Hong Kong, China, Singapore, and so on. Emerging markets such as stock exchanges in India, Malaysia, Thailand, Pakistan, Bangladesh, Sri Lanka, Brazil, Indonesia, etc.

Over the last few decades, the integration of capital markets between developed and emerging countries has become a global debate. Voronkova (2004) examines cointegration related to structural changes between the stock markets of Central European countries and the stock markets of more developed European countries and the United States. The author argues that the stock markets of Central European countries are interconnected among themselves and connected to the stock markets of European countries and the United States, in the long run, implying greater integration of the stock markets of Central European countries with their global stock markets.

According to Albertus (2021), the relationship between the stock market of developed countries and the stock market of developing countries is interesting for three reasons; First, the emerging market stock market is considered promising for portfolio diversification internationally. Second, this emerging market stock market tends to be vulnerable to fluctuations in regional and international markets. Third, investors can benefit from investing in developed and emerging market stock markets. Furthermore, according to Albertus (2021), major world stock exchanges influence the JCI movement, namely the American Dow Jones, American S&P 500, German Dax, French FCHI, Japan's Nikkei 225, and Hong Kong HSI.

Gerard et al. (2006) studied the level of financial integration between new members of the European Union (EU) with the entire Eurozone using a market rate of return factor model and a regression-based methodology. Their findings outline solid financial links between the Czech Republic, Hungary, and Polish markets. In addition, these markets move along with the Eurozone. The results also show evidence of increased financial integration of Estonia and Cyprus with the Eurozone.

Babetskii et al. (2007) investigated four Eastern European countries (Czech Republic, Hungary, Poland, and Slovakia), reconnecting the Eurozone at national and sectoral levels using various econometric techniques. Empirical findings show stock market integration between the Czech Republic, Hungary, Poland, and the Eurozone.

Kasa (1992) studied the stock markets of Japan, Germany, Canada, and the United States to identify general stochastic trends in the monthly and quarterly time series for the period 1974 - 1990 using the Johansen cointegration technique. The study results provide evidence of the existence of a single vector that encourages cointegration between stock markets in this study. Therefore, there

is a long-term relationship between the stock markets of these countries.

Roca (1999) investigated the interrelationships between the stock markets of Japan, Korea, the United States, the United Kingdom, Singapore, Taiwan, Australia, and Hong Kong using the Johansen cointegration technique. This study uses weekly stock prices to determine the long-term relationship between stock markets. Granger Causality Test is also used to find the direction of causality. The results show no cointegration between the Australian stock market and the stock markets of other countries. However, it was found that the Australian stock market was significantly influenced by the US and UK stock markets.

Lamba (2005) conducted a comprehensive extensive sample analysis to investigate a long-term relationship between the South Asian stock market and the developed market stock market for the period July 1997 to December 2003 using a multivariate cointegration model. The results show that the Indian stock market is influenced by the developed markets of the United States, Britain, and Japan. However, Pakistani and Sri Lankan stock markets were relatively independent of the influence of the developed market stock market over the entire sample period. The study also finds that the three stock markets of the South Asian region are becoming more integrated with each other but at a relatively slow pace.

Suchismita (2005) examines the dynamic relationship between the Asian stock market and the US stock market, emphasizing the Indian stock market. The results reveal that the Indian stock market is integrated with the Asian and US markets. Asian stock markets in general, including the Indian stock market, are influenced by the Japanese and US stock markets. Furthermore, the Indian stock market was also found to influence several important Asian stock markets.

Aggarwal (2003) examines the integration of three participating equity markets before and after the entry into force of NAFTA in 1993 based on daily, weekly and monthly data for the seven years before and after NAFTA entry into force (1988-2001), unit root tests for the entire period 1988-2001, 1988-1993 (pre-NAFTA), and 1994-2001 (post-NAFTA), showed that stock prices were non-stationary. However, stock returns were generally stationary for the three markets and the three study periods. However, the three NAFTA countries' daily, weekly, and monthly share prices are only cointegrated for the post-NAFTA period. Similarly, the stock price of the United States is more integrated with that of Canada and the stock price of Mexico after the entry into force of NAFTA.

Narayan et al. (2004) examined the dynamic relationship between the stock markets of Bangladesh, India, Pakistan, and Sri Lanka using the Granger temporal causality test approach by linking the relationship between stock price indices in a multivariate cointegration framework. This study finds that in the short term, there is Granger causality from stock prices in Pakistan to stock prices in India, share prices in Sri Lanka to stock prices in India, and stock prices in Pakistan to stock prices in Sri Lanka. According to them, Bangladesh is the most exogenous of the four markets, reflecting a capital market of small size and market capitalization.

Naeem (2000) examined the relationship between the South Asian stock market and the US and UK stock markets from January 1994 to December 1999. Monthly stock market indexes of Pakistan, India, Sri Lanka, Bangladesh, the USA, and the UK were investigated using bivariate cointegration analysis. And multivariate. The results reveal no long-term relationship among these stock markets in the sample period.

Glezakos et al. (2007) examined the short-term and long-term relationship

between the Greek stock exchange and the world's major financial markets using cointegration analysis and the Granger causality test. The research data use monthly stock market data from 10 countries. The results reveal the dominance of the United States financial market and the strong influence of the DAX and the FTSE on all other stock markets. The influence of the German stock market and the US Dow Jones index, is very significant on the stock market on the Athens stock exchange.

The data population of this study is all stock market indices in Southeast Asia. The sample used Southeast Asia's four major stock market indexes as the independent variable and the Indonesian stock market index as the dependent variable.

The world's major stock exchange indices used as independent variables are (1) ^KLCI is the primary stock exchange index in Malaysia, (2) ^STI is the primary stock exchange index in Singapore, (3) ^SET is the primary stock exchange index in Thailand, (4) ^PSEI is the primary stock exchange index in the Philippines. The stock exchange index used as the dependent variable is the Jakarta Stock Exchange Index (^JKSE), the central Indonesian stock exchange index.

The research data sample period is the daily closing price of each stock exchange index between 2017 and 2018. The number of data pooling formed is the number of trading days during the research period. The number of data summarized is 478 data sets. The analytical tool used is multiple linear regression with SPSS software.

Data analysis used descriptive statistical analysis to provide an overview of the data seen from the average, standard deviation, maximum, and minimum. The descriptive statistical analysis describes data into clearer and easier-to-understand information.

2.1. Hypothesis

Based on previous studies, the hypotheses that can be drawn are:

H1: The KLCI index positively affects JKSE for the period 2017 to 2018.

H2: The STI index positively affects JKSE for the period 2017 to 2018.

H3: The SET index positively affects JKSE for the period 2017 to 2018.

H4: PSEI index positively affects JKSE for the period 2017 to 2018.

H5: The KLSE, STI, SET, and PSEI indexes together affect JKSE for the period 2017 to 2018.

3. RESEARCH METHODS

The population of data from this research is all stock exchange indices globally. The samples used were Southeast Asia's regional stock exchange indices as the independent variable and the Indonesian Stock Exchange Index (JKSE) as the dependent variable.

The landmark Asian regional stock exchange indices used as independent variables are:

1. The Kuala Lumpur Stock Exchange (KLCI) index is Malaysia's primary stock exchange index.

2. Strait Times Index (STI) is Singapore's primary stock exchange index.

3. The Bangkok Stock Exchange (SET) index is Thailand's primary stock exchange index.

4. The Philippine Stock Exchange Index (PSEI) is the primary stock exchange index in the Philippines.

The research data sample period is the closing price of the daily index between 2017 and 2018. The amount of data pooling that will be formed is the number of trading days during the research period. The number of data summarized is 478 data sets.

4. RESULTS
4.1. Results

Data analysis used descriptive statistical analysis to provide an overview of the data seen from the average, standard

deviation, maximum, and minimum. The descriptive statistical analysis describes data into clearer and easier-to-understand information. Descriptive statistics have a function to provide an overview or description of data seen from the average value (mean), standard deviation, maximum, and minimum. The following table is the result of the descriptive statistical tests carried out.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
KLCI	478	1635,31	1895,18	1770,1268	53,65221
STI	478	2966,45	3615,28	3289,6288	153,77268
STE	478	1535,51	1838,96	1668,8262	85,62849
PSEI	478	6843,83	9058,62	7800,9280	494,28869
JKSE	478	5251,0	6689,3	5913,462	315,5649
Valid N (listwise)	478				

Hypothesis testing using Multiple Linear Regression. Multiple Linear Regression measures the relationship between the dependent variable and the independent variables either partially or simultaneously. Based on the results of the regression test using SPSS, the mathematical equations of this research regression are as follows:

JKSE = 673.138 - 0.115 KLCI - 0.152 STI + 2.521 STE + 0.223 PSEI

Table 2. Coefficient Test Results

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	673,138	254,797		2,642	,009
	KLCI	-,115	,199	-,020	-,578	,564
	STI	-,152	,092	-,074	-1,665	,096
	STE	2,521	,129	,684	19,542	,000
	PSEI	,223	,022	,349	9,929	,000

a. Dependent Variable: JKSE

The coefficient of determination is one of the analytical tools used to determine the effect of the independent variable on the dependent variable. In this study, the coefficient analysis used is Adjusted R Square because the independent variable used is more than one variable. The table below shows that the coefficient of determination test resulted in an Adjusted R Square of 0.717 or 71.7%. This shows that the variables studied are Current Ratio, Return On Equity, and Debt To Equity Ratio affect Stock Return of 71.7% while other variables influence 28.3%.

Table 3. Determinant Coefficient Test Results

Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,848[a]	,719	,717	167,8516	,107

a. Predictors: (Constant), PSEI, STE, KLCI, STI
b. Dependent Variable: JKSE

The t-test is used to test how the influence of the independent variables individually on the dependent variable. The results in the partial test state that if the test results have a significant level of less than 0.05, then the hypothesis is accepted. Vice versa, if the resulting significant level is more than 0.05, then the hypothesis will be rejected.

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Table 4. T Test Results

Coefficients ᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	673,138	254,797		2,642	,009
	KLCI	-,115	,199	-,020	-,578	,564
	STI	-,152	,092	-,074	-1,665	,096
	STE	2,521	,129	,684	19,542	,000
	PSEI	,223	,022	,349	9,929	,000

a. Dependent Variable: JKSE

3

The F test is known as the simultaneous test or the ANOVA test, which is a test that looks at how the influence of all the independent variables together on the dependent variable. In the ANOVA test, if the test results have a significance level of less than 0.05, then the hypothesis being tested is acceptable. On the other hand, if the test results show a significant level greater than 0.05, then the hypothesis being tested is rejected.

Table 5. F Test Results

ANOVAᵇ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34173848	4	8543462,089	303,237	,000ᵃ
	Residual	13326379	473	28174,162		
	Total	47500227	477			

a. Predictors: (Constant), PSEI, STE, KLCI, STI

b. Dependent Variable: JKSE

5. CONCLUSION

Based on the analysis and discussion that has been carried out in the previous chapter, the conclusions of this study are as follows: (1) KLCI has a negative but not significant effect on JKSE from 2017 to 2018, (2) STI has a negative but not significant effect on JKSE from 2017 to 2018, (3) SET has had a positive and significant effect on JKSE from 2017 to 2018, (4) PSEI has had a positive and significant effect on JKSE from 2017 to 2018, (5) KLCI, STI, SET, and simultaneously have a significant effect on JKSE from 2017 to 2018, (6) The R square number of 0.719 indicates that the dependent variable in this study (JKSE), 71.9%, can be explained by the independent variables (KLCI, STI, SET, PSEI), while other variables outside the model explain the remaining 28.1%.

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