



Determinant of Foreign Direct Investment Inflows in Asean Countries

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Abstract

Foreign Direct Investment (FDI) believed to be one of the instruments to reduce gap between the rich and the poor countries has considered Asian countries destination, including ASEAN Region. The aim of this study was to analyze factors affecting FDI in ASEAN countries (Cambodia, Indonesia, Malaysia, Philippines, Thailand, and Vietnam) during 2007-2016. The method used to analyze the data was multiple linear regression. The results indicated that market size, government integrity, and infrastructure quality positively affected FDI; wages and exchange rates negatively affected FDI; while, economic crisis had negative effect only in Malaysia. Meanwhile, economic openness, tax rate, and interest rate did not affect FDI inflow in ASEAN countries.

Key words : FDI, Openness economy, Government integrity, tax rate, infrastructure, Market Size.

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INTRODUCTION

Many believe that Foreign Direct Investment (FDI) is one of the factors that has accelerated economic growth and since the early of 1990s the flow of FDI to Asian emerging countries has increased substantially. Foreign Direct Investment (FDI) is an international capital flow from companies of a country by establishing or expanding other companies in other countries (Krugman and Obstfeld 2006). FDI could help reduce gap between the rich and the poor existing in a country because of knowledge and technology transfer, as it is generally regarded as one of the factors accelerating economic growth (Romer,1993). The flow of FDI into Asian emerging countries has increased rapidly since the early 1990s and despite the downturn during the Asian crisis, FDI inflows to these countries have rapidly increased after the crisis (Kurniati and Yanfitri, 2007). ASEAN (Association of South East Asia Nations) as emerging countries has become investor's destination to invest FDI. Figure 1

shows the empirical development of FDI in ASEAN countries which tends to increase; although, the FDI declined in 2009 due to the impact of the global crisis in 2008. Many factors influences the influx of FDI, such as conditions of recipient countries of FDI (pull factors) and conditions as well as strategies of foreign investors (push factors). The pull factors affecting FDI include resources availability, competitiveness, industry/trade-related policy, and FDI liberalization policies (in the form of investment incentives). Meanwhile, the push factors include investment production strategies of investors, as well as risk perceptions of the recipient country. Among the pull factors, infrastructure is considered to be essential. Abubakar et al (2012) identified infrastructure significantly and positively affected FDI inflows into Malaysia, since the availability of infrastructure has attracted FDI and further accelerated the pace of economic development.

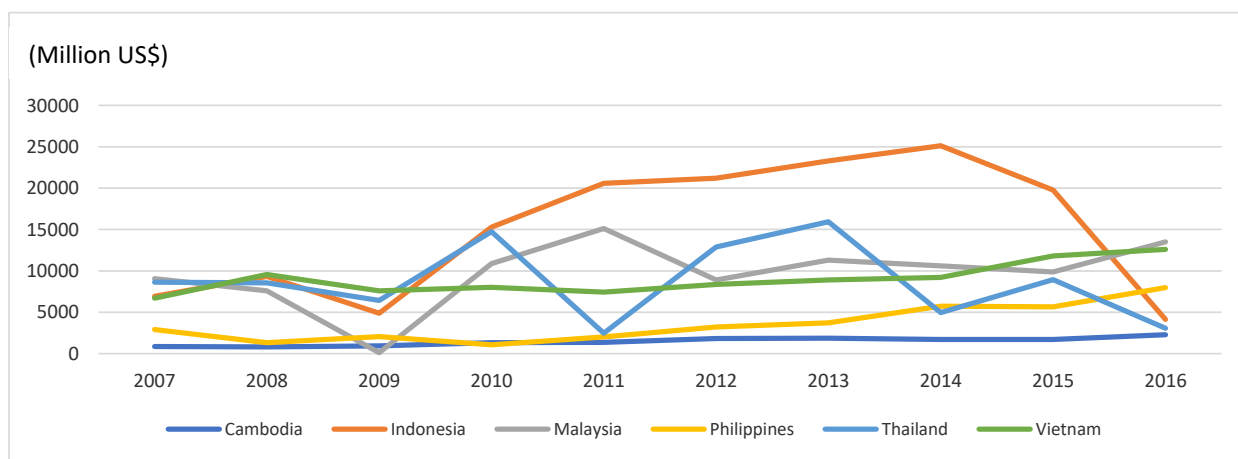


Figure 1. Foreign Direct Investment
 Source: World Bank (processed)

In addition, the general factors determining FDI are market size, trade openness, and human capital. Meanwhile, Chen et al. (2006) revealed that exchange rate movements has a significant impact on FDI inflows; although, the impact of the exchange rate on the FDI depends on the investment motive. If the motive of the investment is based on production cost calculation (cost-oriented firm), depreciation of the currency taken place in the investment destination country will increase the FDI inflows; on the other hand, if market sizes (market-oriented firms) are motivated then the depreciation of the destination country currency will decrease FDI inflows.

Further study by Canare (2017) in Asia Pacific countries showed that in general, corruption lowers FDI inflows; thus, low-corruption countries receive more FDI inflows. In addition, countries that implement reforms and lower levels of corruption receive more FDI inflows. Corruption tends to lower FDI for economic and ethical reasons and increases risk that becomes an additional cost for investors. Previously, Khan et al. (2013) stated that multinational corporations (MNCs) tend to avoid countries with high levels of corruption, as it reduces FDI entry. In the meantime, Becker et al (2012) conducted a study in 22 European countries found that the tax rate affects the quality and quantity of FDI. The quality of FDI is the contribution of per unit capital to the total revenue tax generated by the government from corporate tax and labor income tax. The quality of FDI causes negative

effect as increased tax base decreases the amount of FDI.

Foreign Direct Investment (FDI) is very important to encourage economic growth especially in the developing countries. Thus, this study is to investigate the determinants of FDI in 6 ASEAN countries during the period of 2007-2016 from the perspective of economic and institutional aspects. Foreign Direct Investment (FDI) conducted by countries in the world started from the following thoughts (Banga, 2003) : Market imperfection (Hymer, 1976); FDI is a direct effect of imperfect markets, The internalization theory (Rugman, 1986); internalization of transaction costs increases profitability and emergence of FDI's "efficiency-seeking", The eclectic approach (Dunning, 1988); FDI can create ownership, internalization, and locational advantages.

Several factors affected FDI, such the study of Haufler and Wooton (1999) who used a two-state model in which no incumbent domestic firms with asymmetric market sizes competed with others to attract foreign monopolies. This study concluded that foreign monopolies preferred to be in a country with a large market, despite an increase in tax burden. Meanwhile, in his study, Caves (1971) identified the major factors affecting FDI flows; production costs, technological barriers, and trade markets. The relationship between tax rates and FDI was inconsistent, as some studies indicated a negative and significant relationship between tax rates and FDI. Djankov et al. (2010) using corporate tax data from 85 countries found a negative relationship

among tax variables on investment especially in the industrial sector. Menahile, Nerudova (2011) showed tax burden as very important factor influencing investment

decision; besides, economic infrastructure, transportation and geographical factors as important determinants. Earlier, McMullen et al. (2008) argued that as increased tax has a direct impact on entrepreneurial activity, employers consider its potential risks and obstacles for their future; while, Chakrabarti (2001) pointed out that the key determinants of FDI are market size, labor costs, economic openness, economic growth, exchange rates, and taxes. Another study by Hunady and Orviska (2014) concluded that corporate tax rates have no significant effect on FDI, but significantly affect labor costs, economic openness, firing costs, per capita GDP and public debt, as well as the negative impact of the financial crisis on the flow of FDI in the EU.

Hansson and Olofsdotter (2004) identified non-taxable FDI determinants of infrastructure quality, access to markets, "knowledge" in the country, experience, and technology. Then, Quazi (2007) identified the determinants of FDI based on data panels from South Asian countries that there was a positive relationship between FDI and the investment environment, market size, and rate of return on investment.

Meanwhile, Leitao and Faustino (2010) who examined the determinants of FDI in Portugal as an example of an open but small economy found significant variables of FDI namely market size, economic openness, labor costs, and economic stability. Previously, Uramova and Marcinekova (2008) proposed

that a country selected by foreign investors was mostly based on real and permanent factors such as political stability, market size, transportation costs, and labor costs. Pearson et al. (2012) found that per capita income and unemployment rates have a negative impact on FDI. This relationship takes place because countries with higher per capita incomes will ward off FDI inflows as higher income means higher wages, and high unemployment rates are positively correlated with crime ratios thereby hampering investors. According to Bailey (2018), initially, researchers focused only on economic factors such as market size, labor costs, exchange rates, infrastructure and the like as key factors in determining a country's ability to attract Foreign Direct Investment or otherwise.

In the 1990s, after the work of North (1991), FDI researchers began to focus more attention on the influence of institutions (Miyake and Sas, 2000; Ramirez, 2002; Brahim and Rachdi; 2014). Institution is defined as "rules of the game in society" (North, 1991). Bailey (2018) further explained six most significant institutional factors in increasing or reducing the costs associated with attracting or blocking the FDI in a country: (1) political stability, (2) rule of law, (3) democratic institutions, (4) corruption, (5) tax rates, and (6) cultural gaps.

He found that institutional factors such as political stability, democracy, and law supremacy would attract FDI, on the contrary corruption, tax rates and culture would hinder FDI. Further, Echeverriet et al. (2014) revealed a strong positive relationship between institutional quality business improvement.

Freedom in doing business and investment has an impact on the emergence business in developing countries; besides, international trade that will spur business development in low-income countries. Wei (2000), Javorcik and Wei (2009) found a negative correlation between institutional factors, such as corruption and political risks, on FDI. Institutional factors increasing costs create inefficiencies in markets and resource allocations, which prevent FDI (Cuervo-Cazurra, 2008). Djankov et al. (2003) asserted that in countries where many regulations impede new business activities, there is also a higher level of corruption. Al Sadig (2009) stated that the level of corruption in the host country has a devastating effect on FDI inflows; one point increases in the level of corruption leads to a decrease in FDI per capita by approximately 11 percent.

RESEARCH METHOD

The aim of this study was to investigate Foreign Direct Investment (FDI) in 6 developing countries of ASEAN (Cambodia, Indonesia, Malaysia, Philippines, Thailand and Vietnam) in 2007-2016. The independent variables were economic openness proxy by ratio of export and import to GDP, final consumption as a proxy by Market Size, income per capita as a proxy by level of wages in a country, government integrity is proxy by level of corruption, infrastructure quality, tax rate, interest rate, and exchange rate. Meanwhile, the impact of the 2008 crisis was the dummy variable taken place in 2009 (1 = crisis, 0 = no

crisis). Data source from World Bank, ASEAN Investment Report.

In analyzing the effect of independent variables on dependent variable of FDI, multiple linear regression analysis (OLS) with panel data ($i = 6, t = 2007-2016$) was used. Therefore, the research model developed is as follows: FDI = f (Openness Economy, Market Size, Wage, Government Integrity, Infrastructure, Tax Rate, Interest Rate, Exchange Rate, Economic Crisis)

$$\text{LogFDI}_{it} = \alpha_0 + \alpha_1 \text{Log Openness Economy}_{it} + \alpha_2 \text{Log Market Size}_{it} + \alpha_3 \text{Log Wage}_{it} + \alpha_4 \text{Government Integrity}_{it} + \alpha_5 \text{Infrastructure}_{it} + \alpha_6 \text{Tax Rate}_{it} + \alpha_7 \text{Interest Rate}_{it} + \alpha_8 \text{Log Exchange Rate}_{it} + \delta_1 D_{\text{Cam}} + \delta_2 D_{\text{Ina}} + \delta_3 D_{\text{Malay}} + \delta_4 D_{\text{Phil}} + \delta_5 D_{\text{Viet}} + \mu$$

FDI : Foreign Direct Investment (US \$ current price), Openness Economy : Ratio of Export and Import to GDP, Market Size : Proxy by final consumption (US \$ current price), Wage : Proxy by GDP per Capita (US \$ current price), Government Integrity: Corruption Perceptions Index (0-100), Infrastructure : Infrastructure Quality (1 = extremely underdeveloped to 7 = well developed and efficient by international standards, Tax Rate : Tax Rate (%), Interest Rate : Real Interest Rate (%), Exchange Rate : Domestic currency exchange rate against US \$, D : Dummy Variable Crisis (1 = crisis, 0 = no crisis), α_0 : Intercept, α : Value of Variable coefficients, δ : Value of Dummy Coefficient, Log : Logarithm, It : panel data ($i = 6, t = 2007-2016$), μ : Error term.

RESULTS AND DISCUSSION

As emerging countries, ASEAN has been considered the investors destination to invest FDI. Table 1 shows the development of FDI from 2007-2016 in ASEAN countries as research objects. The value of FDI inflows fluctuates, but

tends to increase. In 2008 there was a significant decline from Laos, Philippines and Thailand. even Singapore fell 76.81% in FDI. on the contrary the increase in FDI inflows in 2008 occurred in Indonesia, Myanmar and Vietnam which rose above 30% compared to 2007.

Table 1. Flow of FDI into ASEAN Countries

Host Country	2007 (US\$ million)	2008 (US\$ million)	2009 (US\$ million)	2010 (US\$ million)
Brunei Darusalam	260	239	370	629
	-40.00%	-8.08%	54.81%	70.00%
Cambodia	867	815	539	783
	79.50%	-6.00%	-33.87%	45.27%
Indonesia	6928	9318	4877	13304
	41.00%	34.50%	-47.66%	172.79%
Laos	324	228	319	333
	72.60%	-29.63%	39.91%	4.39%
Malaysia	8538	7248	1381	9156
	40.60%	-15.11%	-80.95%	563.00%
Myanmar	715	976	579	-
	67.10%	36.50%	-40.68%	-
Philippines	2916	1544	1963	1713
	-2.00%	-47.05%	27.14%	-12.74%
Singapore	37033	8589	15279	35520
	26.20%	-76.81%	77.89%	132.48%
Thailand	11330	8539	4976	6320
	19.80%	-24.63%	-41.73%	27.01%
Vietnam	6739	9579	7600	8000
	180.80%	42.14%	-20.66%	5.26%
ASEAN	75650	47075	37883	75758
	33.50%	-37.77%	-19.53%	99.98%

Source: ASEAN Investment Report (2011)

In 2009 there was a drastic decline in FDI in most ASEAN countries except Laos, Philippines and Singapore which increased, even though compared to 2007 FDI inflows was still far behind. The decline in FDI inflows to ASEAN countries in 2008 and 2009 was allegedly due to global supreme mortgage crisis in 2008 that originated from America and impacted the entire world including Southeast Asia. On the other hand, if we compare FDI from ASEAN countries in 2010 (post-crisis) and 2007 (before the crisis). hence the ability to recover quickly is owned by Brunei (2.4x), Indonesia (1.92x) Vietnam (1.18x), Malaysia

(1.07x) and Laos (1.02x). while Singapore (0.96x) and Cambodia (0.9x) are still slightly below the 2007 FDI inflows and Philippines (0.59x) and Thailand (0.56x) which are still far, which is only around 55-60%, but overall FDI inflows into ASEAN countries start stable.

Share FDI in ASEAN countries, Singapore which is the leader, in a stable economic condition that is more than 40% FDI in ASEAN goes to Singapore except in 2008. While for the 6 countries that we will examine, share of FDI is fluctuating but the highest is in Indonesia, Thailand, Vietnam and Malaysia.

Table 2. Estimation Results of the Dependent Variable: Log (FDI)

Independent Variable	Coef.	Std. Error	T-Statistic	Prob	Conclusion
<i>Constanta</i>	-45.90033	34.68061	-1.323516	0.1932	-
Openness Economy	1.614250	1.060474	1.522197	0.1358	-
Log (Market Size)	4.494017	2.146525	2.093624	0.0427	Sig*
Log (Wage)	-4.501856	2.573358	-1.749409	0.0879	Sig**
Government Integrity	0.049178	0.022791	2.157724	0.0370	Sig*
Infrastructure	0.718920	0.313501	2.293196	0.0272	Sig*
Interest Rate	-0.012565	0.026674	-0.471038	0.6402	-
Tax Rate	-0.010630	0.030023	-0.354046	0.7252	-
Log (Exchange Rate)	-2.486740	0.864562	-2.876301	0.0064	Sig*
Dummy Crisis of Cambodia	0.416104	0.534691	0.778214	0.4410	-
Dummy Crisis of Indonesia	-0.220713	0.499827	-0.441579	0.6612	-
Dummy Crisis of Malaysia	-4.289550	0.539805	-7.946477	0.0000	Sig*
Dummy Crisis of Philippines	0.255699	0.472390	0.541288	0.5913	-
Dummy Crisis of Thailand	0.256877	0.475486	0.540240	0.5920	-
Dummy Crisis of Vietnam	0.121723	0.517607	0.235165	0.8153	-
Adjusted R ²	0.840265				
F-Statistic	17.33482				
N	60				

*significant 5%

**significant 10%

Source: Secondary data, processed

To investigate the determinants of FDI in the six ASEAN countries, seven independent variables were used; Openness

Economy, Market Size, Wage, Government Integrity, Quality of Infrastructure, Tax Rate, Interest Rate, Exchange Rate, and Economic

Crisis. Panel data were analyzed using Fixed Effect Model method because in Chow test, Prob value of Chi Square was = 0.0056 (<0.05). The result of the regression estimation of the panel data using Fixed Effect model is shown in Table 2.

Based on the estimation results of Table 1, the general equation is formulated:

$$\begin{aligned} \text{Log(FDI)} = & -45.90033 + 1.61425*\text{Log} \\ & \text{Openess Economy} + \\ & 4.494017*\text{Log Market Size} - \\ & 4.501856*\text{Log Wage} + \\ & 0.049178*\text{Government} \\ & \text{Integrity} + \\ & 0.718920*\text{Infrastructure} - \\ & 0.012565*\text{Interest Rate} - \\ & 0.010630*\text{Tax Rate} - \\ & 2.486740*\text{Log Exchange Rate} \\ & + 0.416104*\text{Dcam} - \\ & 0.220713*\text{DIna} - \\ & 4.289550*\text{DMalay} + \\ & 0.255699*\text{DPhil} + \\ & 0.256877*\text{DThai} + \\ & 0.121723*\text{DViet} + \mu \end{aligned}$$

So the equation of each country is as follows:

$$\begin{aligned} \text{Log(FDI}_{\text{cambodia}}) = & -35.431 + 1.61425*\text{Log} \\ & \text{Openess Economy} + \\ & 4.494017*\text{Log Market Size} - \\ & 4.501856*\text{Log Wage} + \\ & 0.049178*\text{Government} \\ & \text{Integrity} + \\ & 0.718920*\text{Infrastructure} - \\ & 0.012565*\text{Interest Rate} - \\ & 0.010630*\text{Tax Rate} - \\ & 2.486740*\text{Log Exchange Rate} \end{aligned}$$

$$\begin{aligned} \text{Log(FDI}_{\text{indonesia}}) = & -40.911 + 1.61425*\text{Log} \\ & \text{Openess Economy} + \\ & 4.494017*\text{Log Market Size} - \\ & 4.501856*\text{Log Wage} + \end{aligned}$$

$$\begin{aligned} & 0.049178*\text{Government Integrity} + \\ & 0.718920*\text{Infrastructure} - \\ & 0.012565*\text{Interest Rate} - \\ & 0.010630*\text{Tax Rate} - \\ & 2.486740*\text{Log Exchange Rate} \end{aligned}$$

$$\begin{aligned} \text{Log(FDI}_{\text{malaysia}}) = & -55.566 + 1.61425*\text{Log} \\ & \text{Openess Economy} + \\ & 4.494017*\text{Log Market Size} - \\ & 4.501856*\text{Log Wage} + \\ & 0.049178*\text{Government Integrity} + \\ & 0.718920*\text{Infrastructure} - \\ & 0.012565*\text{Interest Rate} - \\ & 0.010630*\text{Tax Rate} - \\ & 2.486740*\text{Log Exchange Rate} - \\ & 4.289550*\alpha_{\text{malay}} \end{aligned}$$

$$\begin{aligned} \text{Log(FDI}_{\text{philippines}}) = & -52.939 + 1.61425*\text{Log} \\ & \text{Openess Economy} + \\ & 4.494017*\text{Log Market Size} - \\ & 4.501856*\text{Log Wage} + \\ & 0.049178*\text{Government Integrity} + \\ & 0.718920*\text{Infrastructure} - \\ & 0.012565*\text{Interest Rate} - \\ & 0.010630*\text{Tax Rate} - \\ & 2.486740*\text{Log Exchange Rate} \end{aligned}$$

$$\begin{aligned} \text{Log(FDI}_{\text{thailand}}) = & -52.974 + 1.61425*\text{Log} \\ & \text{Openess Economy} + \\ & 4.494017*\text{Log Market Size} - \\ & 4.501856*\text{Log Wage} + \\ & 0.049178*\text{Government Integrity} + \\ & 0.718920*\text{Infrastructure} - \\ & 0.012565*\text{Interest Rate} - \\ & 0.010630*\text{Tax Rate} - \\ & 2.486740*\text{Log Exchange Rate} \end{aligned}$$

$$\begin{aligned} \text{Log(FDI}_{\text{vietnam}}) = & -37.581 + 1.61425*\text{Log} \\ & \text{Openess Economy} + \\ & 4.494017*\text{Log Market Size} - \\ & 4.501856*\text{Log Wage} + \\ & 0.049178*\text{Government Integrity} + \\ & 0.718920*\text{Infrastructure} - \end{aligned}$$

0.012565*Interest Rate -
 0.010630*Tax Rate -
 2.486740*Log Exchange Rate

Because it uses the Fixed Effect model, each country has its own intercept, shown in table 3. And the dummy crisis variable was only added to Malaysia, because it was only significant in Malaysia.

Tabel 3. Cross Section Fixed Effect

	Effect
Cambodia	10.46944
Indonesia	4.989166
Malaysia	-9.665338
Philippines	-7.038824
Thailand	-7.073947
Vietnam	8.319504

Source : Secondary data, processed

The results of the regression estimation indicated that Market Size (consumption), Government Integrity, Infrastructure Quality, Exchange Rate, Wage (GDP/Capita), influenced foreign direct investment inflows in six ASEAN countries. Meanwhile, the Economic Openness, Tax Rate, and Interest Rate had no effect on FDI. For the dummy variable of the crisis, the country significantly affected the economic crisis was only Malaysia.

Market size (proxy by consumption) had a positive and significant effect on FDI in 6 ASEAN countries; if market size increased by 1% then Foreign Direct Investment (FDI) would increase by 4.494%. There were two consequences when FDI came to the destination country; first, higher tax rate; second, being bigger size of the market as location incentive such as backward linkage

and agglomerating force. Often, the second effect was much more dominant in attracting FDI inflow. The findings of this study were consistent with the results of Diaz et al. (2014) in Brazil that domestic consumption and productivity growth could increase foreign direct investment; while, the increased productivity in other countries would reduce FDI entering Brazil. Other findings of Mudenda (2015) using panel data from 12 South African countries from 2003 to 2013 revealed that corporate income tax has a significantly negative impact on FDI inflows.

The next finding showed that the wage of labor negatively affected FDI in 6 ASEAN countries. If wages increased by 1% then FDI would decrease by 4.502%. The results of this study were in line with the one of Pearson et al. (2012) that GDP per capita is related negatively and significantly to foreign direct investment. Similarly, Le & Nam (2018) using data from 7 countries of FDI destination in addition to Vietnam and 23 countries of investors to Vietnam during 2000 – 2015 found that the major factor of FDI entering Vietnam was caused by the availability of skilled labor with wage rates far lower than that of other investment destination countries in one sample area. Meanwhile, the study of Chen et al. (2010) in Hong Kong, Macao, and Taiwan (HMT) concluded that the presence of foreign investment generated significant negative spillover in wage rates in domestic firms and hampered wage growth in domestic companies. In sort, these previous findings indicated that foreign investment increased wage inequality among firms. However, Tomohara and Takii (2010) proposed that despite concerns that the growth of multinational businesses may have negative impacts on local workers, such fears might be unwarranted

Further finding revealed that government integrity positively and significantly affected FDI in the 6 ASEAN countries. Thus, if government integrity increases by 1 (0-100 scale) then FDI would increase by 0.049%. This government integrity index represented by Corruption Perception Index (CPI) described that the more corruption free a country has, the more positive effect the foreign direct investment will. This was in line with the research of Javorcik and Wei (2009) who found that corruption in a country is always negatively related to the possibility of multinational corporations (MNC) to invest. By using KKZ corruption measure, the increase of corruption from level like in Estonia to a level like in Azerbaijan might decrease FDI by 15%.

Next, Bailey (2018) showed that institutional factors such as political stability, democracy, and legal certainty will encourage the increased FDI; while, corruption, tax rates, and cultural distance will decrease the FDI. Yet, different findings were proposed by Barassi & Zhou (2012) that the impact of corruption on FDI is heterogeneous and depends on the quantity of FDI distribution in the investment destination country. When countries has a low quantity of FDI distribution the level of corruption negatively affect FDI. However, in countries with high quantity of FDI distribution, the relationship between corruption and FDI is not significant, because if a country has been chosen to be an investment destination then increased corruption will not affect the investment. The control of corruption and rule of law does not have a statistically significant effect on attracting foreign direct investment (Pay and Alakbaarov, 2016). Furthermore, infrastructure had a positive and significant

effect on FDI in 6 ASEAN countries. If the infrastructure index increased by 1 (scale 1-7) then the FDI would rise by 0.719%. The better the quality of the infrastructure provided by the destination country is the more attractive the 6 ASEAN countries to be investment destination of the FDI will be.

The results of this study were in line with the findings of Abu Bakar et al (2012) that infrastructure has a positive and significant effect on FDI inflows, as the general factors determining the FDI are market size, trade openness, and human capital. In addition, Donaubauer et al (2015) found that effective infrastructure assistance improves the quality of the recipient country's infrastructure. Infrastructure has consistently proven to be an important determinant of the attractiveness of the developing countries towards FDI.

The studies of Koyuncu and Unver (2016) also showed that all infrastructure variables lead to an increase in FDI inflows; while, Pradhana et al. (2013) in India found that there is a two-way causality between FDI and infrastructure. The next finding was that exchange rates negatively and significantly affected FDI in 6 ASEAN countries. If the exchange rate depreciated by 1% against US \$, then FDI would decrease by 2.4867%. This finding was different from the result of Sharifi and Mirfatah (2012) that exchange rate positively related to FDI with parameters of 0.0001, but exchange rate volatility negatively related to FDI with parameter of -0.001. Meanwhile, Jin & Zang study (2013) who conducted a research in China using monthly time series data in the period of January 1997 – September 2012 showed that appreciation of real value of currency increases FDI inflows. Other study of Renani and Mirfatah (2012) in Iran revealed that the Gross Domestic Product (GDP), openness, and exchange rates have a

positive relationship with foreign direct investment.

This study recommended the adoption of a stable exchange rate policy, and reduced exchange rate volatility to attract more FDI. In addition, the study of Khandare (2016) in India and China found that there is a positive correlation between FDI and exchange rate in India; while, in China the correlation between FDI and exchange rate is negative. Furthermore, the study of Alba et al. (2009) concluded that first, FDI and exchange rate are interdependent over time. Secondly, under the favorable FDI environment, the exchange rate has a positive and significant influence on the average rate of FDI inflows. For the dummy economic crisis, only Malaysia negatively and significantly affected by the influence of economic crisis to FDI by -4.29%.

This result was consistent with the one of Dornean and Oanea (2016) who analyzed panel data during the period of 1994-2011 from 10 Eastern and Central European countries. They discovered that economic crisis has a negative impact on capital flows in some countries; although, the amount varies depending on the type the capital inflows and the destination countries. In addition, this study also emphasized that as economic growth has a positive influence on FDI, economic recovery after crisis will encourage FDI inflows, as according to Kahouli and Maktouf (2015), the global economic crisis has no effect on FDI stocks. The fact was that economic crisis affected the attractiveness of a country; therefore, some countries reallocated their investment or the level of investment significantly declined soon after the crisis started. Thus, the important thing

was strong foreign investor confidence in the economic recovery of host countries after the economic crisis.

Lastly, economic openness, tax rates, and interest rates had no effect on FDI in 6 ASEAN countries. This finding was in line with that of Eshghi and Eshghi (2009) that the company's tax rate has no impact on FDI inflows. Meanwhile, the study of Victor (2011) showed that trade openness brings the potential to leverage more FDI into emerging market economies, but this needs to be complemented appropriate macroeconomic and sector policies. Insignificance of tax rates and interest rates are suspected because the use of discrete data and the nature of tax rates and interest rates data every year tends to have a constant trend (very little change), while the trend of FDI from year to year tends to be dynamic.

CONCLUSION

Based on the results and discussion of the research, we conclude that market size, government integrity, and quality of infrastructure have a positive and significant impact on FDI in 6 ASEAN countries during the period of 2007-2016. Meanwhile, labor wage and exchange rate have significantly negative impact on FDI in 6 ASEAN countries during the period of 2007-2016; while, economic crisis has a significantly negative effect on foreign direct investment in Malaysia. In addition, economic openness, tax rate, and interest rate do not affect FDI inflow in 6 ASEAN countries.

Based on these conclusions, we recommend that 6 ASEAN countries increase their market size, government integrity, and quality of infrastructure; so that, investors from developed countries will be interested in investing in the 6 ASEAN countries. Besides,

establishment of fair labor regulations for both labor and for the company, and always maintain internal and external stability, especially the exchange rate.

For further research, it can looking for variables from proxy government policies (tax rates) and interest rates are more representative in the model, because the motives of investment are profits, so a country's tax and interest rates are points taken into account by investors. In addition, spatial effects can be added in the model, because the object of research is in one area and side by side so that it should be suspected that there is a spatial dependence between countries.

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