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Faculty of Management and Economics

Doctoral Thesis Summary

**A comparison of FDI determinants in ASEAN3 and
ASEAN5 countries: New evidence from financial
integration factor analysis**

**Srovnání determinant PZI v zemích ASEAN3 a ASEAN5: Nové
důkazy z analýzy faktoru finanční integrace**

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ABSTRACT

Foreign direct investment (FDI) contributes greatly to the economic development of the receiving country by providing an important source of finance for development and acting as a channel for the transfer of capital and new technology. On the one hand, FDI adds to the stock of domestic capital and increases the productivity of production factors such as raw materials and labor. On the other hand, FDI also contributes to diversifying the economy by adding new economic actors and promoting competition to produce better products at lower prices in the host country. The literature has indicated that FDI inflows are determined by the market size, the degree of openness, the role of institutional factors and degree of economic integration. Besides, other factors such as labor costs, infrastructure, domestic tax rates, and institutional environment are correlated significantly with FDI inflows. Many studies about the factors were influenced by foreign direct investment inflows in developing countries as well as developed countries. However, none of the research articles compare FDI determinants in ASEAN3 and ASEAN5 with the new issue of the financial integration factor measured by the KAOPEN index to see whether or not it has an impact, along with other factors, on attracting FDI inflows in ASEAN3 and ASEAN5 member countries. Therefore, in this study, the author conducts a "a comparison of FDI determinants in ASEAN3 and ASEAN5," focusing on the new issue of the financial integration measure by KAOPEN index and a re-examination of the impact of other factors such as gross domestic product, infrastructure facility, trade openness, labor costs, interest rate, institutional stability, and exchange rate to FDI inflows. The author uses the quantitative research strategies by the panel ordinary least square estimation with the method of first differencing to address the critical research question and research hypotheses of this study. There are three stages of this study. In the first stage, the author identifies factors influencing FDI inflows in ASEAN countries. In the second stage, the author uses econometric models to give concrete empirical evidence. And in the third stage, the author draws a conclusion based on findings from the econometric models. The author also includes an interview conducted with experts on the impact of these factors on attracting FDI in ASEAN member countries, which can help policymakers improve the FDI attraction of ASEAN member countries as well the FDI attraction of Vietnam. This study collected data from eight ASEAN member countries during two financial crises from 1996 to 2016. The author divides ASEAN member countries into two groups, ASEAN3 and ASEAN5, based on their level of economic development. The findings indicate that the coefficient of financial integration is positive and statistically significant at a 1% level of significance on FDI capital inflows. The empirical results also support the hypothesis that foreign direct investment in ASEAN3 and ASEAN5 is positively correlated to market size and

infrastructure facilities, and negatively correlated to labor costs as well as trade openness in ASEAN3.

ABSTRAKT

Přímé zahraniční investice (PZI, Foreign direct investment - FDI) významně přispívají k hospodářskému rozvoji hostitelské země tím, že poskytují důležitý zdroj financí pro rozvoj, převod kapitálu a nové technologie. Na jedné straně PZI navyšují zásoby domácího kapitálu a zvyšují produktivitu výrobních faktorů, jakými jsou suroviny a práce. Na druhé straně PZI také přispívají k diverzifikaci ekonomiky tím, že vytváří nové hospodářské subjekty a podporují konkurenceschopnost s cílem vyrábět v hostitelské zemi lepší produkty za nižší ceny.

Literatura naznačuje, že příliv PZI je určován velikostí trhu, stupněm otevřenosti, rolí institucionálních faktorů a stupněm ekonomické integrace. Další faktory, jakými jsou mzdové náklady, infrastruktura, daňová sazba dané země a institucionální prostředí, pak s přílivem PZI vysoce korelují. Mnoho studií zaměřených na tyto faktory bylo ovlivněno přílivem přímých zahraničních investic jak v rozvojových zemích, tak v rozvinutých zemích. Žádný z výzkumných článků však nesrovnává determinanty PZI v ASEAN3 a ASEAN5 s novou problematikou faktoru finanční integrace měřenou indexem KAOPEN, aby se zjistilo, zda má nebo nemá dopad, spolu s dalšími faktory, na příliv PZI do ASEAN3 a členských zemí ASEAN5. Z toho důvodu provedl autor této práce „srovnání determinant PZI v ASEAN3 a ASEAN5“ zaměřující se na novou problematiku faktoru finanční integrace měřenou indexem KAOPEN a na následné přezkoumání dopadu dalších faktorů, jakými jsou hrubý domácí produkt, infrastruktura, otevřenost trhu, mzdové náklady, úroková sazba, institucionální stabilita a směnný kurz, na příliv PZI.

K řešení zásadní výzkumné otázky a výzkumných hypotéz použil autor této práce kvantitativní výzkumné strategie s využitím metody nejmenších čtverců aproximací s metodou první diference. Tato práce má tři fáze. V první fázi autor identifikuje faktory ovlivňující příliv PZI v zemích ASEAN. Ve druhé fázi autor využívá ekonometrických modelů k zajištění konkrétních empirických důkazů. Ve třetí části pak autor, na základě výsledků z ekonometrických modelů, vyvodí závěr. Autor také poskytuje rozhovor s odborníky o dopadu těchto faktorů na atraktivitu PZI v členských zemích ASEAN, což může politikům pomoci zlepšit atraktivitu PZI jak v členských zemích ASEAN, tak i ve Vietnamu. Tato práce shromáždila data z osmi členských zemí ASEAN v průběhu dvou finančních krizí v letech 1996 až 2016. Autor rozděluje členské země ASEAN do dvou skupin, ASEAN3 a ASEAN5, na základě úrovně jejich ekonomického rozvoje. Výsledky naznačují, že koeficient finanční integrace je pozitivní a statisticky významný pro příliv kapitálu PZI, při statistické hladině významnosti 1%. Empirické výsledky také podporují hypotézu, že přímé zahraniční investice do ASEAN3 a ASEAN5 pozitivně korelují s velikostí trhu a vybaveností infrastruktury a negativně korelují se mzdovými náklady a otevřeností trhu v ASEAN3.

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LIST OF ABBREVIATIONS AND ACRONYMS

AEC	ASEAN Economic Community
ADB	Asian Development Bank
AREAER	Annual Report on Exchange Arrangements and Exchange Restrictions
ASEAN	Association of Southeast Asian Nations
FD	First Differencing
FDI	Foreign Direct Investment
FII	Foreign Institutional Investor
GDP	Gross Domestic Product
ICT	Information & Communication Technology
IMF	International Monetary Fund
ISO	International Organization for Standardization
MNCs	Multinational Corporations
OECD	Organisation for Economic Co-operation and Development
POLS	Panel Ordinary Least Square
TWMNCs	Third World MNCs
UNCTAD	United Nations Conference on Trade and Development

1. INTRODUCTION

1.1 Research background and motivations

Foreign direct investment (FDI) contributes greatly to the economic development of the host country by promoting the factors of economic growth of a country, i.e. transfer of capital and new technologies. As a result, the attraction of foreign direct investments is getting more and more attention from economists and policymakers. On the one hand, FDI adds to the stock of domestic capital and increases the efficiency of production factors such as raw materials and labor as input. Moreover, FDI contributes to diversify the economy by adding new economic actors and promotes the competition to produce better products at lower prices in the host country. Consequently, the ability to produce goods and services in the host country is improved.

FDI has played an essential role in the economic development of many developing countries. According to Khachoo and Khan (2012), claimed the developing countries do not have enough national savings in order to finance their investments, and thus, they need foreign capital in form of both direct and indirect investments. Thangavelu and Narjoko (2014) proved that FDI made an essential contribution to the development of the ASEAN-5 (Indonesia, Malaysia, Philippines, Singapore, and Thailand) economies. Hence, many developing countries, such as the ASEAN economies, want to achieve their growth targets, in order to increasingly competing and attracting more FDI sources through various policies, which are summarized in Table 1.1.

Table 1.1: FDI policies of ASEAN. Source: Adopted from the research of Xaypanya et al. (2015)

Singapore	Reduction of business costs as part of a cost reduction package to savings of the US \$10 billion and extending a 30% corporate investment tax allowance for industrial projects and to selective service industries such as manufacturing, engineering, and technical services and computer-related services
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Thailand	Allowance of 100 % foreign-equity ownership for manufacturing projects regardless of location
Malaysia	Offer 100 % foreign-equity ownership in the manufacturing sector, with no export conditions imposed on new investments, expansions and diversifications. With limited exceptions, foreigners can also own land in Malaysia
Indonesia	Offer qualified investors 100% foreign-equity ownership in wholesale and retail trading companies. 100% foreign-equity ownership in all areas of the manufacturing sector. Reduction of the processing time required for the approval of investments of less than US\$100 million to ten working days. Banks were open to 100% foreign equity ownership
Philippines	Open its retail and distribution sectors to foreign equity, and allowance for foreign companies to compete in the domestic private construction sector
Cambodia	<ul style="list-style-type: none"> • In March 2011, Prakas No. 288 was issued on authorization to use tax removal/ reduction programs of Cambodia under the Agreement on ASEAN Merchandise Trade • Tax incentive in securities exchange: (i) 10% of tax on profit for securities companies; and (ii) 50% reduction of withholding taxes on interest and dividend distribution for public investors
Laos	Allowance for duty exemptions on imported capital goods required by promoted investment project

Vietnam	<ul style="list-style-type: none"> • Allows duty exemptions for imported capital goods for all projects, on the importation of raw materials for production in encouraged investments and for projects located in mountainous or remote regions for the first five years of operation • The period required for the issuance of investment licenses for several types of the project has been reduced to 15 days from the receipt of the required documentation Investment licensing for projects under the US \$5million in Viet Nam has been decentralized to provincial and city levels
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A highlighted point, the ASEAN region is not really homogeneous, which leads to the impact of economic factors on FDI inflows would be significant different in each region in the area (Xaypanya et al., 2015). They found that the differences between ASEAN3 (Vietnam, Laos, Cambodia) and ASEAN5 (Indonesia, Malaysia, Philippines, Thailand, Singapore) raised interesting questions for both academics and policymakers regarding why the two groups of countries performed differently in attracting FDI inflows. According to the recent data from the United Nation Conference on Trade and Development (UNCTAD) (2019) in Table 1.2, Singapore is largest recipient of FDI compared to the rest of the ASEAN countries. Thailand, Malaysia, Indonesia and the Philippines have also been continuously attracting FDI inflows into their countries. Another report of UNCTAD (2018) indicated that the most attractive investment destinations for foreign investor around the world have recently from the least developed countries in ASEAN such as Cambodia, Laos, and Vietnam after the trade war between China and America. Adopting this approach, this study divides the ASEAN member countries into two groups based on their level of economic development: ASEAN3 (Cambodia, Laos, and Vietnam) and ASEAN5 (Indonesia, Malaysia, Philippines, Thailand, Singapore). Moreover, Brunei and Myanmar are excluded from this study due to the limitation of the data.

Table 1.2: FDI inflows in ASEAN3 and ASEAN5 countries (millions of USD). Source: UNCTAD statistics online (accessed September 2019)

ASEAN3				ASEAN5				
Year	Vietnam	Laos	Cambodia	Singapore	Thailand	Malaysia	Indonesia	Philippines
2005	1954	28	381	17784	7975	4065	8336	1851

2006	2400	187	483	37480	8182	6060	4914	2929
2007	6981	324	867	42609	9195	8595	6928	2824
2008	9579	228	877	11810	8054	7172	9318	1544
2009	7600	190	985	18532	5362	1453	4878	1990
2010	8000	279	1404	57460	14555	9060	13771	1298
2011	7519	301	1539	39890	1370	12198	19241	2043
2012	8368	294	2004	60103	9135	9239	19138	2449
2013	8900	427	2068	56672	15493	12115	18817	2280
2014	9200	721	1853	73287	4809	10877	21811	5285
2015	11800	1119	1823	59700	5624	10082	16641	4447
2016	12600	997	2476	73863	1815	11336	3921	6915
2017	14100	1599	2788	75723	6478	9399	20579	8704
2018	15500	1320	3103	77646	10493	8091	21980	6456

The topic of FDI determinants has been widely used and tested in empirical studies for many developing and developed countries (Asiedu, 2002; Cuyvers et al., 2011; Hussain & Kimuli, 2012; Khan & Khachoo, 2012; Kolstad & Villanger, 2008; Nunnenkamp, 2002; Tintin, 2013; Tomio et al., 2010). The analyses carried out by Ang (2008), Bhatt (2008), Hoang and Goujon (2014), Ismail (2009), Tsen (2005), Zebua (2016) and Thangavelu and Narjoko (2014), Xaypanya et al. (2015) are used to study the factors that influence FDI inflow in ASEAN. Based on the eclectic paradigm theory of Dunning (1988), the factors affecting FDI inflows can be separated into observable and unobservable effects. This theory is based on the OLI conditions (OLI stands for Ownership, Location, and Internalization): Ownership specific advantages ('Why' operate in a foreign country?), Location advantages ('Where' do firms produce in a particular host country?), and International advantages ('How' do they compete in the domestic market of the host country?). In this study, the author defined the location-specific advantages as the observable

effects, and two advantages of the ownership-specific and internalization as unobservable effects, which can be time-variant or time-invariant. According to OLI conditions of Dunning (1988), the observable effects are composed of macroeconomic stability (measured by the exchange rate, interest rate, institutional stability), market size (measured by GDP), infrastructure facility (measured by the fixed telephone subscriptions), level of openness (measured by the trade openness), low cost of labor (measured by labor cost). The unobservable effects, which can be time-variant or time-invariant namely government policies, licensing, law and management skills, etc. However, the outcome and conclusions in previous studies failed to address the issue of being biased, unrobust, and ungeneralized. Moreover, financial integration is a new factor in the topic of FDI determinants. Many studies mentioned the effect of financial liberalization policies on economic performance, however, unable to properly measure financial integration (Chinn et al., 2009). They introduced the scale of 'Impossible Trinity' theory and developed a set of "trilemma indexes." namely monetary independence, exchange rate stability, and financial openness. Financial integration is one of the aspects of the 'Impossible Trinity' theory. This theory was developed in the field of international economics and it was formulated by Robert Mundell and Marcus Fleming in the 1960s. Financial integration allows more capital flows to enter the economy. It helps citizens of the host country to diversify their assets through offshore investing and it also encourages foreign investors to bring resources, experience and technology in the receiving countries. To measure financial integration, there are three broad categories: de jure, de facto, and hybrid indicators. KAOPEN index is a new approach, which also has been neglected in previous studies (Quinn et al., 2011). This study has used the data of financial integration measured by KAOPEN index of Chinn et al. (2009) for research purposes.

This study aims to investigate the comparison of FDI determinants in ASEAN3 and ASEAN5. Firstly, identify FDI determinants in ASEAN3 and ASEAN5 based on eclectic paradigm theory of Dunning (1988). Secondly, test the new factor of financial integration based on KAOPEN index. Thirdly, compare the differences in FDI determinants between ASEAN3 and ASEAN5. The study sheds some light on what ASEAN3 and ASEAN5 should do to improve aspects of attracting higher FDI as well as a new trend for scholars in the field of FDI.

The rest of the dissertation is organized as follows. Section 2 discusses the literature review and financial integration in ASEAN countries. Section 3 presents the research methodology adopted in this study. The results, contributions, recommendations and conclusions are in Sections 4, 5, 6.

1.2 Research questions and objectives

This study will address the critical issue for FDI attraction in ASEAN3 and ASEAN5. The main research question is set out as follows:

RQ: What is the difference of FDI determinants between ASEAN3 and ASEAN5?

According to the research question above, the main research objective and three sub-objective of this study are as follows:

RO: To identify and compare FDI determinants between ASEAN3 and ASEAN5

RO1: To identify FDI determinants in ASEAN3 and ASEAN5 based on eclectic paradigm theory of Dunning (1988).

RO2: To test financial integration defined in terms of KAOPEN index.

RO3: To compare the differences in FDI determinants between ASEAN3 and ASEAN5.

2. LITERATURE REVIEW

2.1 Literature review

To be able to understand and answer the research question “What is the difference of FDI determinants between ASEAN3 and ASEAN5?” this section describes the development of FDI in emerging markets and the trend of FDI in ASEAN countries through eclectic paradigm theory of Dunning (1988). Afterward, FDI determinants from previous existing studies are discussed.

The eclectic theory of Dunning became a common analytical framework for understanding FDI as it successfully combined the understanding of determinants of FDI with other theories such as organizational theory of Hymer (1976), international trade theory of Ricardo (1817) and Smith (1776), and market imperfections approach of Kindleberger (1969). The eclectic method is based on the OLI conditions (OLI stands for Ownership, Location, and Internalization): Ownership specific advantages (‘Why’ operate in a foreign country?), Location advantages (‘Where’ do firms produce in a particular host country?), and International advantages (‘How’ do they compete in the domestic market of the host country?). The conglomeration of

the effects of these inter-related pathways is thought to define the patterns and extent of FDI success. This theory helps to analyze why, where, and how FDI enterprises operate in host countries (Dunning, 1988).

Investors grab the investment opportunity to exploit their ownership-specific advantages and to expand abroad by engaging in FDI (Dunning, 1988). The form of intangible assets of the common governance advantages provide for the overall positive advantages of the FDI enterprises and factors such as unlicensed secret technology, management knowledge advantages, and access to foreign markets make the FDI more beneficial than the one of their rivals (Xuemin and Decker, 2004).

The MNEs use their advantages in the internalization incentives to maximize their specific strengths across borders while maintaining the positions within their organization. Their preference is to internalize their benefits rather than take the risks of licensing them. The I factor is a result of market imperfections and it is mainly concerned with the interrelation between ownership and internalization advantages. Internalization enables the enterprise to acquire further ownership advantages such as an increase in its assets (Dunning, 1988).

Location-specific advantages are the primary condition for MNEs to expand. MNEs combine their ownership-specific advantages with the positive factors of the host country in those areas, such as more substantial markets, population growth, etc., combined with infrastructure advantages, political stability and positive factors, e.g. stable interest rates, beneficial tax and the balance of trade (Rugman, 1982). Thus, the macro-levels of the economy help to determine the location, size, and type of FDI.

Several determinants affecting the FDI have been widely used and tested in empirical studies for many developing and developed countries (Asiedu, 2002; Cuyvers et al., 2011; Hussain & Kimuli, 2012; Khan & Khachoo, 2012; Kolstad & Villanger, 2008; Nunnenkamp, 2002; Tintin, 2013; Tomio et al., 2010). The analyses carried out by Ang (2008), Bhatt (2008), Hoang and Goujon (2014), Ismail (2009), Tsen (2005), Zebua (2016) and Thangavelu and Narjoko (2014), Xaypanya et al. (2015), Tri et al. (2019) are used to study the factors that influence FDI inflow in ASEAN. As a result, this study focuses on the factors affect the foreign direct investment in ASEAN3 and ASEAN5 countries namely: financial integration, market size, exchange rate, institutional stability, interest rate, infrastructure facility, labor cost, and trade openness.

Financial integration: Financial integration is an essential factor in influencing the FDI attraction into ASEAN countries. In order to better understand this relationship, this study reviews the two financial crises which are the Asian one in

1997-98 and the global economic crisis in 2007. In Table 2.1, it is significant that, between 1990 and 1996, 4 ASEAN members were among the most popular destinations for the FDI outside of the OECD area, and that they were placed in the fifth position even though they still fell far behind China.

Table 2.1: Top 5 according to the total FDI inflows between 1990 and 1996 (in million \$). Source: Adapted from the research of Maxim (2014)

Country	Value of FDI inflows (million \$)
US	327.7
China	156.3
UK	146.6
France	124.8
Asean 4 (Singapore, Malaysia, Indonesia, Thailand)	27.1

However, everything has changed since the Asian financial crisis in 1997. It started in Thailand in July 1997 and spread across East Asia, wreaking havoc on economies in the region and leading to significant spillover effects in Latin America and Eastern Europe in 1998. The Asian financial crisis has generated a slowdown in the FDI inflows into the ASEAN countries. Within five years, from 1997 to 2002, FDI inflows decreased from 35,940 million U.S. dollars to 17,007 million U.S. dollars (Table 2.2). The global 2007-2008 economic crisis is considered by many economists to have been the worst financial crisis since the Great Depression of the 1930s. It has negatively affected the FDI flows into ASEAN as it decreased from nearly 83,810 million U.S. dollars in 2007 to 49,907 million U.S. dollars in 2008 and 46,642 million U.S. dollars in 2009 (Table 2.2).

Table 2.2: FDI inflows into Asean from 1990 to 2016 (in millions \$). Source: UNCTAD statistics online database

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998
FDI inflow	12.8	13.6	12.7	16.6	20.5	28.6	32.9	35.9	20.9
Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
FDI inflows	31.0	22.5	21.9	17.0	31.4	40.1	43.1	63.2	83.8
Year	2008	2009	2010	2011	2012	2013	2014	2015	2016
FDI inflows	49.9	46.6	110.5	94.9	108.1	126.1	130.4	126.6	101.1

Many studies mentioned the effect of financial liberalization policies on economic performance and tried to measure costs and benefits of capital controls. According to Chinn et al. (2009), it is difficult to measure the extent of capital account controls because properly measuring the extent of openness or restrictions in cross-border financial transactions is almost impossible. Moreover, they said that it is extremely difficult to distinguish between *de jure* and *de facto* controls on capital transactions. The *de jure* measure of capital financial openness as a binary variable is based on

the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). This variable cannot represent the actual capital controls due to the differences of the capital controls depending on the type of capital flows (inflows or outflows) and the kind of financial transactions. *De facto* is based on the index of the volume of capital flows relative to GDP (Lane & Milesi-Ferretti, 2007), the equality of real interest rate (Chen, 1981) or the international capital-asset-pricing model (ICAPM) (De Gregorio, 1998). Consequently, the researchers often interpret it as *de facto* restrictions on capital transactions when referring to financial integration among countries (De Gregorio, 1998; Rajan & Zingales, 2003). In their research, Chinn et al. (2009) pointed out that governments of developing countries have converged to the middle ground of 'Impossible Trinity': managed exchange rate flexibility, controlled financial integration, and limited monetary autonomy. They also introduced the scale of 'Impossible Trinity' and developed a set of "trilemma indexes." This study has used the data of financial integration measured by KAOPEN index for research purposes. KAOPEN is based on the data reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). By looking at the KAOPEN index of a nation, an economist or a researcher can tell whether the country is implementing a multiple exchange rate policy or not. This is the mechanism that forms a kind of rates for transactions on the current account and a type of exchange rate applied to the capital account. The KAOPEN index is computed from binary dummy variables. Subsequently, it is constructed by applying the principal component analysis. This technique is summed up by the matrix (4xn) in which 4 is the number of turns, and n is the set of data over the years into a matrix (1xn) expressing the KAOPEN index through the year. KAOPEN varies between 0 and 1. Higher values of the index mean that a country is more open to cross-border capital transactions.

Hypothesis 1: The countries with higher degrees of financial integration (KAOPEN index) results in attracting more FDI inflows.

Market size: the size of market is usually measured by GDP or GDP per capita (Xaypanya et al., 2015). GDP reflects the market size and market growth as they are key factors to attract FDI with many multinational corporations (MNCs) choosing to expand into new markets. Before investing, investors often consider economic indicator like GDP. Besides, Thangavelu and Narjoko (2014) proved that countries with a large domestic market tend to attract more FDI as they pose significant advantages in production and consumption.

Hypothesis 2: The countries with higher GDP attract more FDI inflows.

Exchange rate: This variable represents price competition. Therefore, the author expects a positive relationship between FDI inflows and exchange rate because a rising exchange rate will reflect an improvement in the competitiveness of exported

goods. Hoang and Goujon (2014) found a significant positive correlation between exchange rates and FDI inflows into ASEAN. Accordingly, many studies agreed with their result such as Bhatt (2008), Ismail (2009), Thangavelu & Narjoko (2014), Zebua (2016). In this study, the author used the exchange rate of the currency of the host country against the US dollar. The data was gathered from the website of the United Nations Conference on Trade and Development.

Hypothesis 3: A country with an unstable currency tends to pose more risk and uncertainty and thus less attractive. Therefore, it is expected that the exchange rate stability is positively related to FDI inflows.

Labor cost: It is an essential factor in the production process that influences the economic profit of investors. Foreign investor minimizes production costs through cheap labor in ASEAN countries. Research by Cuyvers et al. (2011), Hoang and Goujon (2014), and Khachoo and Khan (2012) proved the negative relationship between labor costs and FDI inflows. The author used the wage and salaried workers in the manufacturing division representing the labor costs variable. All wage data in each country is transformed into U.S. dollars and collected from the World Bank's World Development Indicators. In fact, since the wage data of some countries are missing, some data has been collected from other websites of the International Labor Organization, the General Statistics Office of Vietnam and Malaysia.

Hypothesis 4: The countries with low labor cost attract more FDI inflows.

Infrastructure facility: The primary basis for an investment decision is whether the investment environment supports foreign-invested enterprises' activities or not. The investment environment can be seen as the infrastructure that promotes economic activities such as harbors, roads, communications, electricity, and water systems. Khachoo and Khan (2012) indicated that countries with improving infrastructure facility are more likely to be favored by investors. In this study, the infrastructure facility measures, intended as fixed telephone subscriptions refer to the sum of the active number of analog fixed telephone lines, voice-over-IP (VoIP) subscriptions, fixed wireless local loop (WLL) (per 100 people) of each country. The data of this variable have been taken from the World Bank's World Development Indicators.

Hypothesis 5: The countries with good infrastructures attract more FDI inflows.

Institutional stability: Transparency International defined corruption as a form of dishonesty undertaken by a person entrusted with a position of authority, often to acquire personal benefit. Corruption may include many activities as bribery and

embezzlement. Political corruption occurs when an office-holder or another governmental employee makes a personal gain. However, there are some different arguments about whether corruption negatively influences FDI capital inflows. Understanding the pernicious role of corruption in FDI is essential since it helps the investors reducing the risks from host countries. According to Habib and Zurawicki (2002), corruption provides some companies with preferential access to profitable markets. Moreover, they assessed the impact of corruption on FDI and found out a significantly negative relationship between the two variables. Investors believe that FDI will be increased if the government curbs corruption and increases transparency (Drabek & Payne, 2002; Mauro, 1995; Wei, 2000). Transparency International organization provides CPI index for countries' corruption level where; higher CPI scores mean a lower level of corruption in a country and safer business environment. The score of a country shows the level of public sector corruption with a scale ranging from 0 to 10. 0 is highly corrupted, and 10 is very transparent. Consequently, this study expected that a high CPI score would attract more FDI in the country. The data of CPI variable have been collected from Transparency International's CPI Report.

Hypothesis 6: The countries with low corruption index will attract more FDI inflows.

Interest rate: This variable reflects the cost of capital when investors need to use the financial resources in the host country; it represents also the entry costs of production activities and business. Low-interest rates will be encouraged the investors to raise capital and guaranteed their investment activities. Consequently, the interest rate is an essential factor for FDI inflows. Hoang and Goujon (2014) and Zebua (2016) found out that interest rates have a negative effect on bilateral FDI flows intra-ASEAN. Similarly, Cuyvers et al. (2011) discovered that the difference in interest rates between the two countries leads to a negative relationship with FDI inflows in Cambodia. In this study, the author used the lending interest rate for the variable and expected a negative correlation between interest rate and FDI. The data have been collected from the World Bank's World Development Indicators.

Hypothesis 7: The high volatility of interest rate results in the reduction of FDI inflows.

Trade openness (OPN): Openness is used to measure the trade openness of a country and it also means the level of economic integration in the host country compared to the world economy. Openness will help a country reducing the trade

barriers for goods with the rest of the world. According to Helpman (2014) who related international trade to vertical and horizontal FDI, trade openness is an opportunity for foreign investors who can exploit the comparative advantage of the host country to re-export to another nation. Studies as Ang (2008), Asiedu (2002), Bhatt (2008), Khan and Khachoo (2012), Kolstad and Villanger (2008), Mina (2007), Tintin (2013) proved a significantly positive effect of openness to FDI. The data used to measure the openness variable are in current USD and are taken from the World Bank’s World Development Indicators. This variable is created as $Opn = (Exp + Imp)/GDP$, where Opn represents for trade openness, Exp and Imp are for exports and import, GDP meant gross domestic product.

Hypothesis 8: There is a positive correlation between the trade openness in the export and import of countries receiving investment and the FDI inflows.

Based on the hypotheses as mentioned above, this study puts forward the theoretical framework as follows:

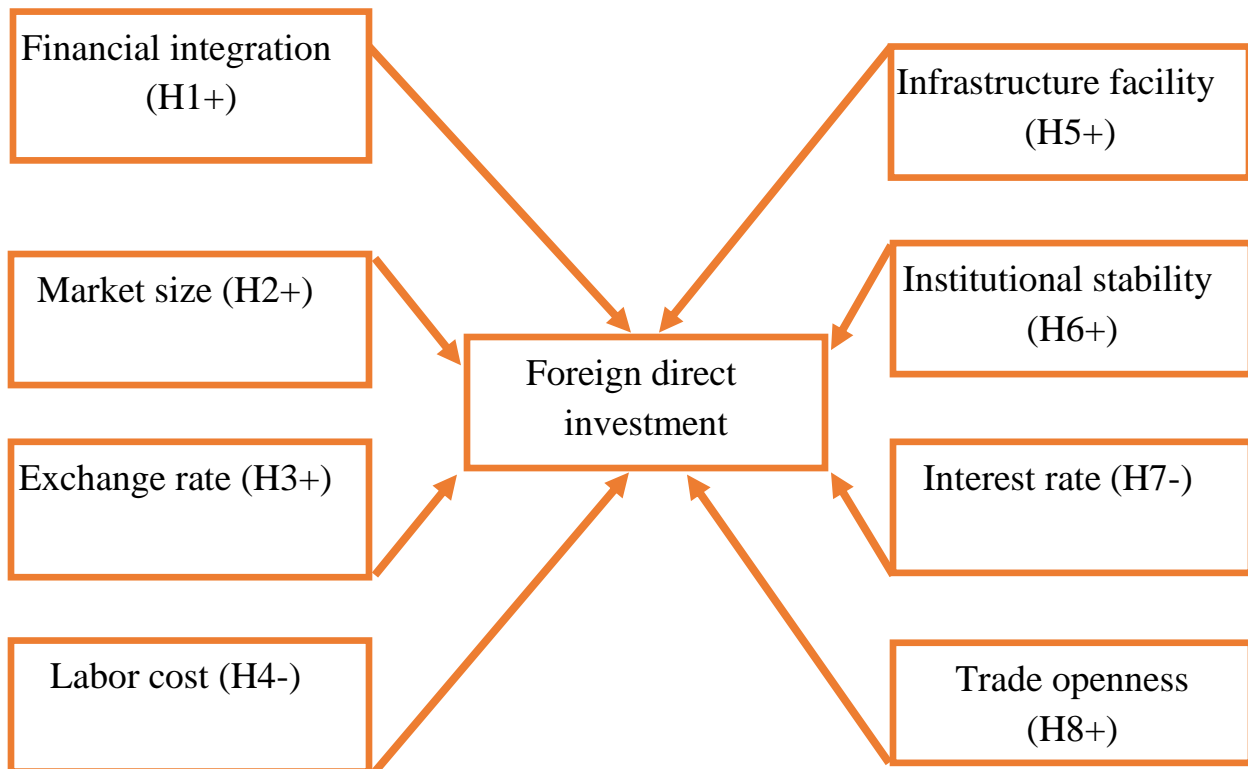


Figure 2.1: The theoretical framework. Source: Own research

2.2. Financial integration in ASEAN countries

The Association of Southeast Asian Nations (ASEAN) includes a group of ten fast-growing countries in economic and financial development: Brunei Darussalam,

Cambodia, Indonesia, Lao P.D.R., Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. Their populations are young and growing and have high saving rates (Almekinders et al., 2015).

According to Almekinders et al. (2015), after the 1997–98 Asian financial crisis, ASEAN countries have taken significant steps forward in their macroeconomic stability and confirmed their external positions. There has been an increase in trade and capital flows between countries in the area, as well as with the rest of Asia and the world. ASEAN financial integration has also improved as a consequence of FDI and FII increases; cross-border banking system linkages have expanded, and foreign participation in ASEAN capital markets has increased (Almekinders et al., 2015).

From 2000 to 2015, ASEAN economic growth has averaged 5% per annum. As the living standard of people improved, the excellent export strategy helped most of the ASEAN member states to increase their annual average GDP growth rates. Generally, the degree of financial integration of each country is likely to increase with its degree of trade integration. However, Unterobberdoerster and Pongsaparn (2011) indicated that the rapid expansion of most Asian economies into world trade has not been matched by a commensurate increase in their degree of financial integration. Unterobberdoerster and Pongsaparn (2011) also introduced a model which relates to the degree of financial integration. The results of the model showed the degree of financial integration of many ASEAN economies is significantly lower than the world’s average, and in several cases lags far behind the norm for Latin America and Eastern Europe.

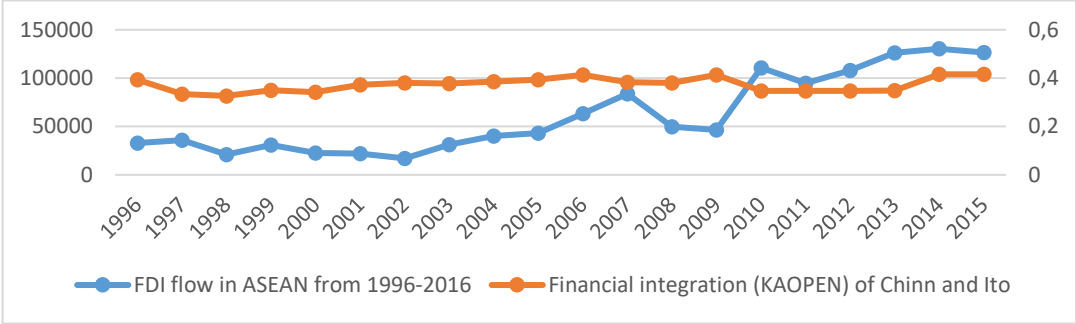


Figure 2.2: FDI inflows and financial integration in ASEAN countries in 1996-2015. Source: The database of the United Nations Conference on Trade and Development; Chinn-Ito’s website

The second issue of ASEAN's financial integration is the level of banking integration. ASEAN’s banking sector is relatively small and limited as most activities cannot extend cross-border (Almekinders et al., 2015). According to Vinokurov and Libman (2017), at the end of 2013, the market capitalization of all of the 24 ASEAN commercial banks combined is smaller than that of Hongkong and

Shanghai Banking Corporation (HSBC), or China Construction Bank. Since there are no large banks to secure the economic stability and economic development in each member states and the region, it is very difficult to mitigate the impact of a crisis when one takes place. Vinokurov and Libman (2017) pointed out the dependence of domestic banks on foreign banks. In 2015, the bulk of payment orders was largely handled by banks from the EU (27.2%) and the US (29.4%). A substantial part of regional liabilities was also concentrated in the EU (36.9%) and the US (32.9%).

Due to concerns over the penetration of foreign banks, domestic banks sometimes set up barriers for international credit and financial institutions. Therefore, each ASEAN member state probably needs to attain a certain threshold level of development of the banking services sector before being able to benefit from its liberalization and integration. Until this is done, the negative effects of market liberalization continue to outweigh its benefits.

3. RESEARCH METHODOLOGY

According to Weeks (2002), the unobservable effects, which can be time-variant or time-invariant namely government policies, licensing organizational, law and management skills, etc. The author includes these unobservable effects into the model of the factors influencing FDI, where those of time-invariant are represented by α_i and those of time-variant are represented by time dummy variables. Based on the aforementioned hypotheses, the author estimated the following model:

$$FDI_{it} = \alpha_0 + \alpha_1 d1_t + \alpha_2 d2_t + \dots + \alpha_T dT_t + \beta_1 FI_{it} + \beta_2 GDP_{it} + \beta_3 EX_{it} + \beta_4 WAGE_{it} + \beta_5 FTS_{it} + \beta_6 CPI_{it} + \beta_7 IR_{it} + \beta_8 OPN_{it} + a_i + u_{it} \quad (1)$$

Where it represents for country i at time period t ($i = 1, \dots, N, t = 1, \dots, T$), $d\tau_t$ is time dummy variables, which is 1 if $\tau = t$, and is 0 if otherwise, u_{it} is the idiosyncratic error. FDI is foreign direct investment, FI is the financial integration, GDP is gross domestic product, EX is the exchange rate, WAGE is the labor cost, FTS is the infrastructure facilities, CPI is the institutional stability, IR is the interest rate, and OPN is the trade openness. Follow the hypothesis development, the author expected that $\beta_1, \beta_2, \beta_3, \beta_5, \beta_6, \beta_8 > 0$, and $\beta_4, \beta_7 < 0$.

Weeks (2002) indicated the panel ordinary least square (POLS) estimation would give biased estimators when a_i is correlated with regressors. Based on the panel data model as shown in equation (1), the government policies related to FDI of each nation, which is included in the time-invariant unobservable effect, a_i can be correlated with GDP, hence $Cov(GDP_{it}, a_i) \neq 0$.

To obtain the unbiased results, Weeks (2002) suggested removing the time-invariant unobserved effects, a_i will out from the equation by using the method of first differencing (FD). Hence, the author estimates the parameters in ASEAN 3 and ASEAN 5 models as expressed in Equation (2) below:

$$\Delta FDI_{it} = \alpha_1 + \alpha_2 d2_t + \dots + \alpha_T dT_t + \beta_1 \Delta FI_{it} + \beta_2 \Delta GDP_{it} + \beta_3 \Delta EX_{it} + \beta_4 \Delta WAGE_{it} + \beta_5 \Delta FTS_{it} + \beta_6 \Delta CPI_{it} + \beta_7 \Delta IS_{it} + \beta_8 \Delta OPN_{it} + \Delta u_{it}, (2)$$

Where $t = 2, 3, \dots, T$. To capture the aggregate time effects, the authors of this study use the intercept and the time dummy variables since 1998 in the model.

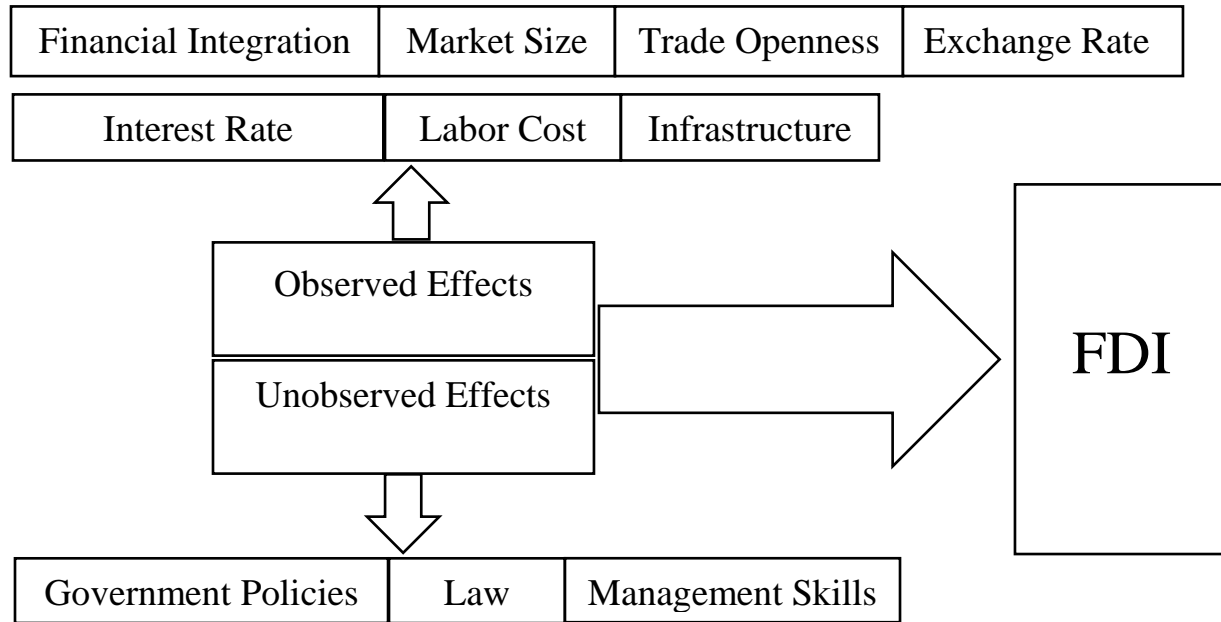


Figure 3.1: The observed and unobserved effects influencing to FDI. Source: Author's evaluation

This study collected the data from ASEAN member countries, including eight countries like Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam in the period from 1996 to 2016. Necessary data were collected from the Vietnam General Statistic Office, the Foreign Investment Agency – Ministry of Planning and Investment, the Ministry of Finance, the International Monetary Fund, the World Bank Group, and the United Nations Conference on Trade and Development. Brunei and Myanmar were excluded from this study due to the limitation of the data.

4. RESULT FROM QUANTITATIVE ANALYSIS

Following the main goal of the research in this study, the POLS estimation by using the method of FD was conducted to test each hypothesis. This study did not

find the existence of autocorrelation as well as heteroskedasticity in ASEAN3 and ASEAN5 estimation. The final result is shown in Table 4.1 & 4.2.

Table 4.1 & 4.2 summarized the results of panel data analysis, which indicate that GDP has 1% of significance as a factor influencing the FDI inflow in ASEAN3 and ASEAN5, and it is consistent with hypothesis 2 (H2). This is also aligned with Dunning's classification of FDI that FDI firms are looking for broader market opportunities to meet the product demand of the large population within ASEAN countries. Many authors such as Bhatt (2008), Cuyvers et al. (2011), Hoang and Goujon (2014), Ismail (2009), Khan and Khachoo (2012), Kolstad and Villanger (2008), Nunnenkamp (2002), Zebua (2016) confirmed this finding. They supported the GDP hypothesis in attracting foreign investment.

Table 4.1: The parameter estimates of ASEAN3. Source: Calculated by the author

Variables	Coefficient	SE	t-statistics	p-value
Constant	-1.374	0.629	-2.181	0.034
d2002	-0.659	0.218	-3.016	0.004
d2003	-0.547	0.215	-2.539	0.014
d2004	-0.581	0.215	-2.705	0.009
d2007	0.471	0.223	2.112	0.039
Δ FI	1.476	0.596	2.472	0.017
Δ GDP	1.675	0.117	14.304	0.000
Δ EX	1.942	0.930	2.089	0.042
Δ FIS	0.313	0.172	1.824	0.074
Δ WAGE	-0.008	0.012	-0.678	0.500
Δ IR	-0.014	0.005	-2.837	0.006
Δ CPI	0.982	0.264	3.717	0.000
Δ OPN	-1.068	0.139	-7.664	0.000
Adjusted R ²	0.864			

Durbin-Watson	1.612
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Table 4.2: The parameter estimates of ASEAN5. Source: Calculated by the author

Variables	Coefficient	SE	t-statistics	p-value
Constant	-1.768	0.862	-2.052	0.043
d1998	-3.976	1.888	-2.105	0.038
d1999	-4.593	1.820	-2.523	0.013
d2000	-4.278	1.789	-2.391	0.018
d2001	-4.686	1.810	-2.587	0.011
d2003	-4.624	1.770	-2.612	0.010
Δ FI	1.940	0.484	4.003	0.000
Δ GDP	1.351	0.476	2.838	0.005
Δ EX	2.015	9.883	0.203	0.838
Δ FIS	2.355	3.763	0.625	0.532
Δ WAGE	-0.237	1.274	-0.186	0.852
Δ IR	-0.097	0.045	-2.145	0.034
Δ CPI	0.260	0.116	2.245	0.027
Δ OPN	1.559	0.950	1.641	0.104
Adjusted R ²	0.787			
Durbin-Watson	1.047			

The coefficient sign of infrastructure facilities (Δ INF) is positive as expected based on the original hypothesis (H5). However, the coefficient estimate of this variable is insignificant (p-value of Δ INF is more than 5%). The sign of the coefficient of Δ WAGE (labor cost) is negative as expected based on hypothesis four (H4). However, the p-value of the regression result is not statistically significant at

5 percent level of significance in ASEAN3 (Table 4.1). This indicates that labor cost does not only have an inverse relation on FDI, but it also plays a less important role when MNEs take FDI decisions ASEAN3. This finding contradicts the theory of Dunning's eclectic paradigm of FDI as cheap labor cost-seeking FDI motive. The studies by Hussain and Kimuli (2012), Zebua (2016) confirmed that labor cost is an insignificant determinant. They argued that the availability of human capital was a major driver of FDI companies many years ago, but everything changed when the competition was increasing in global trade. MNEs started looking for skilled labor rather than cheap one as before. According to Thangavelu and Narjoko (2014), a host country that has this advantage can attract more and better quality FDI than other countries.

The coefficient of the exchange rate (EX) is positive as expected based on the original hypothesis (H3). However, the coefficient estimate of the exchange rate variable is insignificant in ASEAN5 (p-value of ΔEX is more than 5%). This issue can be explained by four causes which led to the precipitation of the Asian financial crisis in 1997-1998 as followed: (1) Higher US interest rates: In the late 1990s, the hot money flows tended from East Asia to the US where is higher interest rates. When the hot money flows slowed down in East Asia, the currencies of this area started to fall, and their governments struggled to keep the exchange rate at a fixed level that against the US\$. (2) Contagion: Thailand was forced to float their currency as Thai Bhat due to speculative attacks on 2 July 1998. This caused rapid devaluation and loss of confidence from investors. As a result, they realized the collapse of the currency system and wanted to get out of Asian. (3) Debt default: Before the crisis 1997-1998, both government and private firms had high external debt ratios. However, this currency crisis caused debt repayments to become more expensive. (4) Severe Recession: With high external debt ratios, the firms must cut back on their investment that leading to lower growth. This caused to affect consumer spending as the price of imports and imported raw materials rose. The post-crisis 1997-1998, East Asia' governments build up new monetary policy instruments such as reserve requirements, open market operations, and tackling financial imbalances in household debts, real estate sector, external stability, loans and financial status of commercial banks, the financial status of the corporate sector, the stock market, fiscal position, and public debt (Nakornthab, 2009). These actions have brought foreign investors' confidence in the exchange rate in ASEAN5. Froot and Stein (1991) also agreed with this finding, they suggested that an exchange rate effect on FDI should not be expected. The coefficient of the interest rate (ΔIR) is negative as expected based on the original hypothesis (H7). This implies that interest rate, as the measurement of monetary policy, discourage or have an opposite effect on FDI inflows in ASEAN countries. Therefore, ASEAN member countries with a lower

interest rate will be considered to be stable money market; thus, more likely to be preferred as FDI destinations.

This study also shows an interesting result realized in a relationship between trade openness and FDI. The coefficient of trade openness (H8) is negative and significant at 1 % level in ASEAN3, but a positive and moderate impact on FDI in ASEAN5. This result of ASEAN3 is contrary to previous studies by authors such as Ang (2008), Asiedu (2002), Cuyvers et al. (2011), Hoang and Goujon (2014), Ismail (2009), Khan and Khachoo (2012), Kolstad and Villanger (2008), Zebua (2016) that confirmed that trade openness of a country influences FDI inflows positively. It can be interpreted that a country's broader trade openness in this region simply reflects the sub-contracting nature of the domestic economy of that country. In the world, the big economies have lower openness because they can produce almost every item to serve their demand and commercial relations take place mainly within their economies (Table 4.3). The countries with high degrees of trade openness are generally more affected after the global market boom and are easily harmed by global economic shocks. This will affect directly and the most strongly to the foreign direct investment (FDI) sector. In brief, in this case of ASEAN3, where the higher degree of trade openness reflects the sub-contracting nature of the domestic economy and does not mean that those ASEAN countries have the higher level of global economic integration and trade liberalization.

Table 4.3: Trade of goods and services in ASEAN3 and other economic countries (in millions \$). Source: Data World Bank

	2014	2015	2016	2017
Vietnam	169.5345	178.7674	184.6863	200.3093
Laos	99.05974	85.79863	75.09182	75.82659
Cambodia	129.6122	127.8641	126.950	124.8947
China	44.87656	39.45307	37.03382	37.80434
Japan	37.54577	35.5964	31.26658	-
United States	30.16366	27.89004	26.57992	-

The main discussion for this part relates to financial integration (KAOPEN) in ASEAN member countries. As can be observed from Table 4.1 & 4.2, an impressive result might be found with a comparison between KAOPEN and FDI. The coefficient of KAOPEN is positive and significant at 1 % level, that is in line with the prior expectation based on the research purpose and hypothesis one (H1). According to Almekinders et al. (2015), after the Asian financial crisis of 1997-1998, ASEAN financial integration has also improved as FDI and FII rose; cross-border banking system linkages expanded, and foreign participation in ASEAN capital markets increased.

5. CONTRIBUTION TO SCIENTIFIC AND PRACTICAL KNOWLEDGE

5.1 Contribution to scientific knowledge

This part indicates the contribution to the scientific and practical knowledge of the study as follows:

5.1.1 Developing and introducing models, indicators for FDI determinants in ASEAN

The models used in this thesis are significant to solve the research problem of FDI inflows in ASEAN as well as other emerging economies. The models have a great explanation, consistency and reasonable to help the author achieve the aim of this thesis.

All the variables are useful and may represent the substantial activities of the government and policymakers in ASEAN. The regulators and supervisors may refer or use directly the models as well as the variables for attracting FDI inflows in ASEAN3 and ASEAN5.

5.1.2 Proving approaches, findings, and suggestions from previous relevant studies

The author reviewed the previous studies and chose a method that seemed appropriate to solve the research problem of the thesis. Accordingly, the approach of this study dealt with the research problem of this thesis successfully. Develop from the findings and suggestions of the previous studies; the author also introduces the use of these studies for the application in ASEAN member countries. The providing shall be exciting on the relevant studies in the same line with this thesis, and the researchers, regulators, supervisors, government, policymakers may refer to the application in some cases.

5.1.3 Acquiring a deeper understanding of FDI Determinants in ASEAN

Through this study, the results added some empirical evidence supporting previous studies. The addition of empirical evidence of financial integration factor contributed to a deeper understanding of the theoretical framework of FDI determinants. The confirmation consolidated the relevant findings, while the case of ASEAN3 and ASEAN5 would enrich the knowledge about the factors influencing FDI inflows.

5.1.4 Adding theoretical contribution to studies of FDI determinants

The empirical findings above provide theoretical contribution within the studies of FDI determinants. As the majority of previous studies put much focus on developing countries, this study extends the results of prior literature to another set of emerging markets, the ASEAN countries, which may imply that studies on FDI of emerging economies may exhibit similar theoretical findings. It is supported by the fact that although with different range of measurements, the findings support that market size, interest rate and trade openness as significant FDI determinants. It also further confirms that a market-seeking purpose is more likely to be FDI motives to the ASEAN member countries, as firms are looking for opportunities to tap into larger market size and growth. This study also attempts to add financial integration factor, which is the focus of the existing studies. The results show that the financial integration factor is significant determinants. This further extends the theoretical framework of FDI determinants, in particular within ASEAN countries and possibly other emerging economies.

5.2 Contribution to practice knowledge

Following the contribution to scientific knowledge, my thesis could have some contribution to practical knowledge as shown below:

5.2.1 Providing critical evaluation of FDI in ASEAN

Apart from the aforementioned theoretical contribution, the findings of this study also present practical implications for the government and policymakers in the ASEAN member countries as well as other emerging economies. The results also give more comprehensive understanding that financial integration, market size, interest rate, institutional stability and trade openness are important determinants when MNEs are looking at the opportunities to invest in ASEAN. However, the

result also implies that MNEs do not place much emphasis on the infrastructure facilities factor in ASEAN as well as labor cost when opting FDI decisions.

5.2.2 Practicality of this study's approach

The significant explanation of the approach used to solve the research problem could be useful to apply in such similar research. When the researchers aim to calculate the implementation of a new regulation launch, especially concerns FDI, the approach used for this thesis might be appropriate for their consideration.

5.3 Contribution to education

The approach of this study indicated that the empirical analysis is appropriate to be used for objectives similar to the aim of this thesis. Academically, the successful use of the POLS model with FD method in analyzing FDI inflows in ASEAN. Additionally, this study also complements previous FDI theories with a new factor is financial integration and negative impact of trade openness at sub-contracting economies like Vietnam, Laos, Cambodia.

6. CONCLUSION, LIMITATIONS and RECOMMENDATIONS

6.1 Conclusions and policy implications

This study has explored FDI determinants in ASEAN3 and ASEAN5 and fills a gap in the existing literature by providing a comprehensive empirical comparison analysis. By using the panel ordinary least square estimation with the method of first differencing, this study identifies FDI determinants in ASEAN3 and ASEAN5. Due to the ASEAN region is not really homogeneous, which leads to the impact of economic factors on FDI inflows would be significant different in each region in the area. The author found that the coefficient of financial integration is positive and significant at 1 % level of significance on FDI inflows in ASEAN3 and ASEAN5. The findings of this study support the hypothesis that foreign direct investment in ASEAN3 and ASEAN5 is positively correlated to market size, infrastructure facilities, and negatively correlated to labor cost as well as trade openness in ASEAN3.

According to Alain Raes (Chief Executive of Asia Pacific and EMEA, SWIFT), financial integration will bring long term and sustained growth to the ASEAN region. The ASEAN Economic Community (AEC) is incorporated in December 2015 and three areas of payment and settlement systems development, capital

account liberalization and capacity building are strategies of AEC 2025 Blueprint for regional financial integration (Figure 6.1).

Strategic Objectives for ASEAN Financial Sector Integration

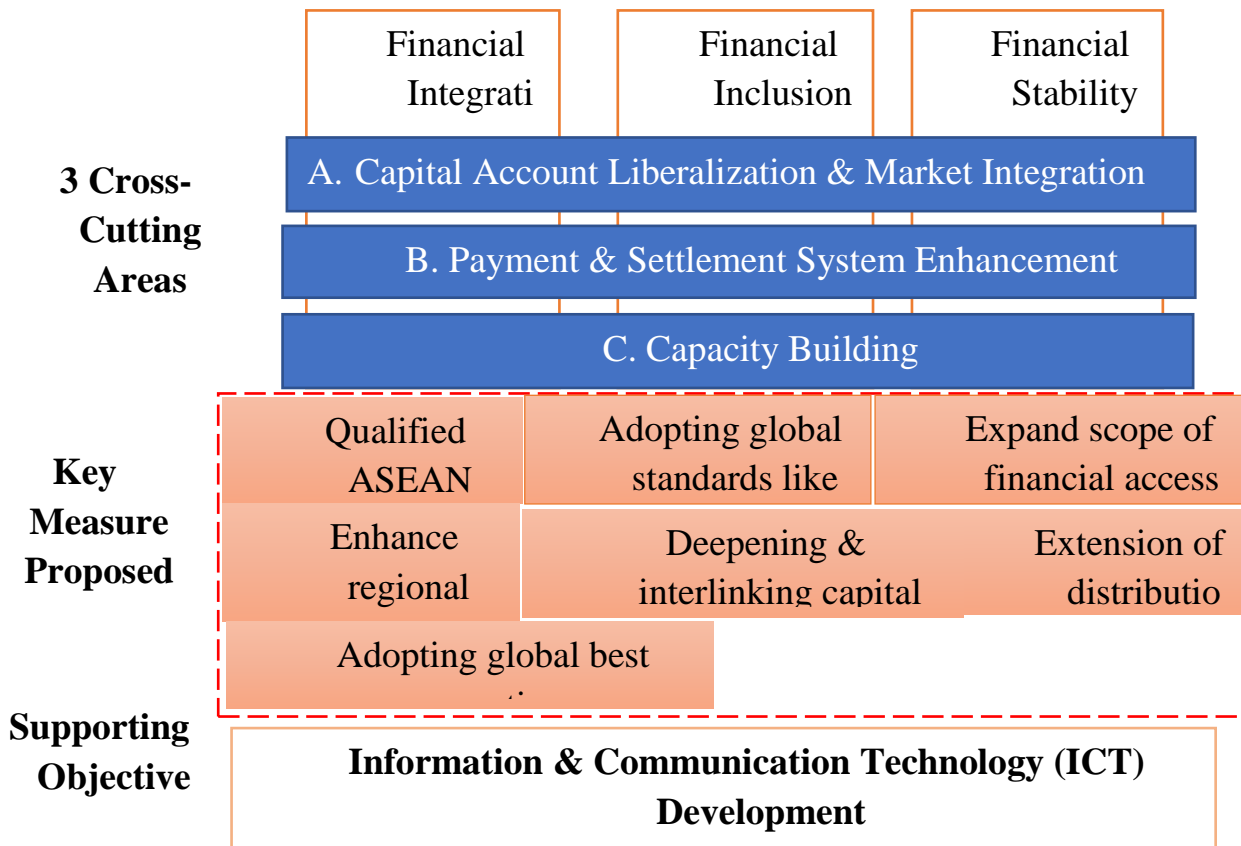


Figure 6.1: ASEAN 2025 Vision. Source: Asian Development Outlook 2016, ADB

Based on the research result related to two variables namely exchange rate and interest rate in ASEAN, the author of this study give some main policy implication as follows: Firstly, the government of ASEAN member countries should find rules-based international monetary framework without contagion and other potentially harmful interventions. It helps each central bank build a monetary policy rule or strategy for setting the policy instruments. As a result, this implementation would remove some of the reasons why central banks have followed each other in recent years. They will not need to guess one another's behavior and try to make ad hoc adjustments. For example, when the Fed lowers its interest rate for reasons if central banks built the policy framework based on international monetary standard, they can properly adjust their interest rate according to their own strategy without deviating from the strategy of Fed. Secondly, according to Zebua (2016), policymakers should maintain a low-interest rate through monetary, fiscal and exchange policy in the

ASEAN countries as investors would rather prefer to invest in countries with a stable economy than into countries with a volatile economy.

Follow to the study's result in part 4, trade openness variable has a negative impact on FDI inflows in ASEAN3. As mentioned above, ASEAN3 member countries need to pursue the policies of trade liberalization in a multilateral manner. According to Huynh The Du (Director of Fulbright University in Vietnam), ASEAN3 countries should promote their comparative advantage to major markets such as the US and Europe. Besides, they should also be interested in commercial fraud during the current trade war between the US and China because US tariff barriers imposed some Chinese companies and other countries. These companies will export their products to the US through the third market like ASEAN3. Therefore, the governments of ASEAN3 countries should have policies for controlling FDI companies instead of encouraging them as today.

6.2 Limitations and recommendations

This study aims to empirically examine the effects of financial integration and other control variables on foreign direct investment capital inflows in ASEAN member countries. However, it, reveals certain limitations and opens avenues for future studies. Initially, the research model was tested with eight countries collected the data from 1996 to 2016. The sample size is quite modest; it should be checked with other countries like Brunei, Myanmar as well as a new member like Timor-Leste to enhance the generalizability of the results. About financial integration issue, the future research should be compared to the KAOPEN index and same indexes in the research model of FDI. This also leaves rooms for future studies. Future studies can use this model to formulate new research or increase the generalizability of this study in another industry, especially policy analysis of FDI in ASEAN as well as developing countries. This is highly recommended directions for future studies.

BIBLIOGRAPHY

- ALMEKINDERS, G., FUKUDA, S., MOURMOURAS, A., ZHOU, J., & Zhou, Y. S. 2015. ASEAN Financial Integration. IMF Working Paper, WP/15/34/, February. Available at: <https://www.imf.org/external/pubs/ft/wp/2015/wp1534.pdf> ASEAN
- ANG, J. B. (2008). Determinants of foreign direct investment in malaysia. *Journal of Policy Modeling*, 30(1), 185-189. doi:10.1016/j.jpolmod.2007.06.014
- ASIEDU, E. (2002). On the determinants of foreign direct investment to developing countries: Is africa different? *World Development*, 30(1), 107-119. doi:10.1016/S0305-750X(01)00100-0

- BHATT, P. R. (2008). Determinants of foreign direct investment in ASEAN. *Foreign Trade Review*, 43(3), 21-51. doi:10.1177/0015732515080302
- BROUWER, G. (2005). Monetary and financial integration in Asia: Empirical evidence and issues. *Asia Economic Cooperation and Integration*, 269-293.
- CHEN, E. K. (1981). Hong Kong multinationals in Asia: characteristics and objectives. *Multinationals from Developing Countries*, 79-100.
- CHINN, M., AIZENMAN, J., & ITO, H. (2009). *Assessing the emerging global financial architecture: Measuring the trilemma's configurations over time*. doi: 10.3386/w14533
- CUYVERS, L., SOENG, R., PLASMANS, J., & VAN, D. B. (2011). Determinants of foreign direct investment in cambodia. *Journal of Asian Economics*, 22(3), 222-234. doi:10.1016/j.asieco.2011.02.002
- DE GREGORIO, J. (1998). Financial integration, financial development and economic growth. Chile: Department of Industrial Engineering, Universidad de Chile. *Unpublished manuscript*.
- DUNNING, J. H. (1988). The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, 19(1), 1-31. doi:10.1057/palgrave.jibs.8490372.
- FROOT, K.A. AND STEIN, J.C., 1991. Exchange rates and foreign direct investment: an imperfect capital markets approach. *The Quarterly Journal of Economics*, 106(4), pp. 1191-1217.
- HELPMAN, E. (2014). Foreign trade and investment: Firm-level perspectives. *Economica*, 81(321), 1-14. doi:10.1111/ecca.12064
- HOANG, H. H., & GOUJON, M. (2014). Determinants of foreign direct investment in vietnamese provinces: A spatial econometric analysis. *Post-Communist Economies*, 26(1), 103-121. doi:10.1080/14631377.2014.874658
- HUSSAIN, F., & KIMULI, C. K. (2012). Determinants of foreign direct investment flows to developing countries. *SBP Research Bulletin*, 8(1), 13-31.
- HYMER, S.H., 1976. *International operations of national firms*. MIT press.
- ISMAIL, N. W. (2009). The determinant of foreign direct investment in ASEAN: A semi-gravity approach. *Transition Studies Review*, 16(3), 710-722. doi:10.1007/s11300-009-0103-0
- KINDLEBERGER, C.P., 1969. American business abroad. *Thunderbird International Business Review*, 11(2), pp. 11-12.

- KHAN, M. I., & KHACHOO, A. Q. (2012). *Determinants of FDI inflows to developing countries: A panel data analysis*
- KOLSTAD, I., & VILLANGER, E. (2008). Determinants of foreign direct investment in services. *European Journal of Political Economy*, 24(2), 518-533. doi:10.1016/j.ejpoleco.2007.09.001
- LANE, P. R., & MILESI-FERRETTI, G. (2007). The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970–2004. *Journal of International Economics*, 73(2), 223-250. doi:10.1016/j.jinteco.2007.02.003
- LEVIN, A., LIN, C., & JAMES CHU, C. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, 108(1), 1-24. doi:10.1016/S0304-4076(01)00098-7
- (MAXIM), L. D. (2014). The foreign direct investments in south-east asia in the context of the 1997 and 2007 crises. *Procedia - Social and Behavioral Sciences*, 109, 160-164. doi:10.1016/j.sbspro.2013.12.437
- MINA, W. (2007). The location determinants of FDI in the GCC countries. *Journal of Multinational Financial Management*, 17(4), 336-348. doi:10.1016/j.mulfin.2007.02.002
- NAKORNTHAB, D. (2009). Thailand's monetary policy since the 1997 crisis. *Kobe University Economic Review*, 55, 75-88.
- NUNNENKAMP, P. (2002). *Determinants of FDI in developing countries: Has globalization changed the rules of the game?*
- QUINN, D., SCHINDLER, M., & TOYODA, A. M. (2011). Assessing measures of financial openness and integration. *IMF Economic Review*, 59(3), 488-522. doi:10.1057/imfer.2011.18
- RAJAN, R. G., & ZINGALES, L. (2003). The great reversals: The politics of financial development in the twentieth century. *Journal of Financial Economics*, 69(1), 5-50. doi:10.1016/S0304-405X(03)00125-9
- RICARDO, D., 1817. *The works and correspondence of David Ricardo Vol. 1: On the principles of political economy and taxation*
- RUGMAN, A.M., 1982. *Internalization and non-equity forms of international involvement*. Centre for International Business Studies, Dalhousie University.
- SMITH, A., 1776. *The wealth of nations, Book 1*. London, Methuen & Co, .

- THANGAVELU, S. M., & NARJOKO, D. (2014). Human capital, FTAs and foreign direct investment flows into ASEAN. *Journal of Asian Economics*, 35, 65-76. doi:10.1016/j.asieco.2014.11.002
- TINTIN, C. (2013). The determinants of foreign direct investment inflows in the central and eastern european countries: The importance of institutions. *Communist and Post-Communist Studies*, 46(2), 287-298. doi:10.1016/j.postcomstud.2013.03.006
- TOMIO, B. T., AMAL, M., & RABOCH, H. (2010). Determinants of foreign direct investment in latin america. *GCG : Revista De Globalización, Competitividad Y Gobernabilidad*, 4(3), 116-133.
- TSEN, W. H. (2005). Determination of foreign direct investment in asean countries: Some empirical evidence. *Borneo Review*, 15(1), 75.
- TRI, HO THANH; NGA, VO THI; DUONG, VU HOANG, 2019. "The determinants of foreign direct investment in ASEAN: New evidence from financial integration factor", *Business and Economic Horizons*, 15(2), pp.292-303. DOI: <http://dx.doi.org/10.15208/beh.2019.18>
- UNTEROBERDOERSTER, M. O., & PONGSAPARN, M. R. (2011). Financial integration and rebalancing in Asia (No. 11-243). International Monetary Fund. Available from: <https://www.imf.org/external/pubs/ft/wp/2011/wp11243.pdf>
- VINOKUROV, E., & LIBMAN, A. (2017). *Re-evaluating regional organizations: Behind the smokescreen of official mandates* doi:10.1007/978-3-319-53055-0
- WEEKS, M. (2002). Introductory econometrics: A modern approach, jeffrey M. wooldridge, south-western college publishing, 2000. *Journal of Applied Econometrics*, 17(2), 191-193.
- XAYPANYA, P., RANGKAKULNUWAT, P., & PAWEENAWAT, S. W. (2015). The determinants of foreign direct investment in ASEAN: The first differencing panel data analysis. *International Journal of Social Economics*, 42(3), 239-250. doi:10.1108/IJSE-10-2013-0238.
- XUEMIN, Z. AND DECKER, R., 2004. Choice of foreign market entry mode. Cognitions from empirical and theoretical studies. http://bieson.unibielefeld.de/volltexte/2004/507/pdf/m_entry.pdf, 20, pp. 2007.
- ZEBUA, H. I. (2016). Determinants of Bilateral Foreign Direct Investment Intra-ASEAN: Panel Gravity Model. *The East Asian Journal of Business Management*, 6(1), 19-24.

LIST OF THE PUBLICATIONS BY THE AUTHOR

Journal Publications

- 1) TRI, H.T; NGA, V.T; DUONG, V.H, 2019. "The determinants of foreign direct investment in ASEAN: New evidence from financial integration factor", *Business and Economic Horizons*, Vol.15, Issue2, pp.292-303. DOI: <http://dx.doi.org/10.15208/beh.2019.18>
- 2) TRI, H., NGA, V. & SIPKO, J. (2019). Predicting overall Staffs' Creativity and Innovative Work Behavior in Banking. *Management & Marketing. Challenges for the Knowledge Society*, 14(2), pp. 188-202. Retrieved 22 Jul. 2019, from doi:10.2478/mmcks-2019-0013.
- 3) TRI, H., T., & NGA, V., T. (2019). Factors Affecting the Disparity of Vietnamese Gold Prices and Worldwide Gold Prices. *Journal of Competitiveness*, **11**(3), 160–172. <https://doi.org/10.7441/joc.2019.03.10>
- 4) DUONG, VU., & TRI, H.T. (2019). FDI absorptive capacity of Vietnam. (Under review)
- 5) TRI, H.T., NGOC-TAN, N., NGA, VO., DUONG, VU., & PAVELKOVA, D. (2019). Motivators and its impacts on job satisfaction in FDI companies - A case study of Eurowindow Vietnam. (Under review)
- 6) VO, N.T., CHOVANCOVA, M. AND TRI, H.T., (2019). A Major Boost to the Website Performance of Up-scale Hotels in Vietnam. *Management & Marketing.Challenges for the Knowledge Society*, **14**(1), pp. 14-30. doi:10.2478/mmcks-2019-0002.
- 7) VO, T., N., CHOVANCOVA, M., HO, T., T. (2019). The impact of e-service quality on the customer satisfaction and consumer engagement behaviors towards luxury hotels. *Journal of quality assurance in hospitality and tourism*. (Accepted)
- 8) TRI, H.T. & SIPKO, J. (2019). A comparison of FDI determinants in ASEAN3 and ASEAN5: New approach from financial integration factor measure by KAOPEN index. (Under review)

Conferences (peer reviewed)

- 1) HO, T.T., PHAN, D., NGUYEN, N.V., SIPKO, J. Application of arima model to forecast gold price in Vietnam. In The 11th International days of statistics and economics: conference proceedings: September 14-16, 2017 Prague, Czech Republic. - Slaný: Melandrium, 2017, p. 469-477. ISBN 978-80-87990-12-4. Dostupné na internete: <https://msed.vse.cz/msed_2017/article/70-Ho-TriThanh-paper.pdf>(The 11th International Days of Statistics and Economics).

- 2) HO, T.T., DAO, P., NGUYEN, N.V., SIPKO, J. Analyzing The Impact of FDI On Vietnam Living Environment. In Proceedings of the 4th International Conference on Finance and Economics: ICFE 2017. - [Slaný]: Melandrium, 2017, s. 279-286. ISBN 978-80-87990-11-7.
- 3) NGUYEN, N.V., NGO, V.M., PHAN, Q.P.T., HO, T. T., PHAN, D. Analysis of Economic Development of Czech Republic and Vietnam. In Proceedings of the 4th International Conference on Finance and Economics: ICFE 2017. - [Slaný] : Melandrium, 2017, s. 279-286. ISBN: 978-80-87990-11-7.
- 4) OKANGA, P.A., HO, T.T., NGUYEN, T.B.T. (2018). Assessment of Efficiency in Government Services Delivery Through E-Platform Implementation: Evidence from Kenya. In DOKBAT 2018 - 14th Annual International Bata Conference for Ph.D. Students and Young Researchers (Vol. 14). Zlín: Tomas Bata University in Zlín, Faculty of Management and Economics. Retrieved from <http://dokbat.utb.cz/conference-proceedings/> ISBN: 978-80-7454-730-0.
- 5) HO, T.T., OKANGA, P.A, NGUYEN, N., TUNG, H.T., SIPKO, J. Why are there foreign investment appearances in countries? Case studies in Vietnam. In Proceedings of the 5th International Conference on Finance and Economics: ICFE 2018 - [Slaný]: Melandrium, 2018, s. 623-635. ISBN 978-80-7454-767-6.
- 6) VU, HOANG DUONG; HO, THANH TRI; DO, LE NHU QUYNH; OKANGA, PATRICK ASANGO. IGA-FDI absorptive capacity and the factor determining FDI flows in developing countries of Asia and Africa. 2018,
- 7) VO, T., N., PHAM, N. T., CHOVANCOVA, M., HO, T., T., VO, V., H. (2018). Hotel Website and Its Sustainable Development Goals. The 8th international conference on Management, Economics and Humanities (ICMEH), Barcelona, Spain. ISBN: 978-609-8239-14-0. (Proceeding).

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A comparison of FDI determinants in ASEAN3 and ASEAN5 countries: New evidence from financial integration factor analysis

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